### FIGURE 1-A

#### >3:198232901-198309500

```
actaagttac tacaaagcag ttaacatagt ctcagatatt aaaaatttaa gatactgaag
       agctaagtca attcctgata atttcttaaa tttgtgatct atttcttca ctgtattcag
61
121
       atcttcatat ttRtagtctt tgcttagagt cttcccaccc gccccacct cgctctgttg
181
       ctcaggccgg agtgcagtgg tgcaattccg gctcatcgca gcttctgcct cctgggttca
241
       agtgattett gtgcctcage etectcagta getgaaatta caggtatgta ecaeccatgee
       tgtttaattt ttatgttagt agagacagag tttcatcaag ttggccaggc tggtcttgaa
301
361
       ctcctqcttt caaqqqattt qcctqctttq qcctcccaaa qtqctgggat tacaggcgtg
       agccattgcg cctggccaag tctttgcctt actcttaaca attcctcaca gctacctttc
421
481
       tatatgttca aaacatactt cggcatttta aagttacttt tcctttaaac cttctatttc
541
       atttacctac ttaagattcc taccttttcc ttttgtttca atcaattgat acttttagtc
601
       ctatcagtct ccacatttta cctatcctgt gtatattttc gtaaatactc ccaccaacat
661
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721
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781
       cctaccttag cctctcaagt agctgagcct acaggcatgc atcactatgc ccagctcatt
841
       tttaaaatta cttgcagcga cagggtgtcc tatgttaccc aggggatctt caactcttag
901
       gctcaagtga tcctcttgtc tcagcctccc gaagtgctaa ccactacacc tattttctta
       aattttatt ttgacggaag agtttcatcc cttttttcag ttaagtcatt tacactcctc
961
1021
       tcctagaatt acatcaaaac tcagcaaagc tataatttta cataagagat tttctccatt
1081
       caacatctca aaaattcctg tatcaaacca tatttcttgt catgaaacgt attaggacgt
1141
       atctgaactg ctggctacaa gttagtatgt atacgcttat acaaggagag atatttaaaa
1201
       gctgattttt tcatttgata tcccctttca aattttaacc tttgttttca ccgccacact
1261
       agaaqtaaaa agtgaggaag gggtatgggg gaaattggac ttcctcaatc tcttcttaac
       atgcaatccc tataaagaaa aacattcatt tataactgta ataaaataca ttaaacacag
1321
1381
       atattaaacc caagagaaac aattctcaga ggatggatac tattaattgg cctaaagaaa
1441
       aagggaaact atttttaaga aggccagtta gttgttttaa gtacaatagc tctctggcat
1501
       actcggagga ttagttccag aaccccacgt ataccaaaac ccgtgcatgt tcaagtctaa
1561
       caggaggcct tgtggaatct gacaggcata tggcattttc tatcccagtt tggttgaaca
       gcacgtgcgt aagtggacac tcgcagttca aacctgtgtt gttcaagggt caactgcagc
1621
1681
       acaggcgcgt agaaaaatac agcaagggaa gtgggaaagc aggagactga aaaaaatttt
1741
       aattacctat ctactactga aaatgataag aaatgacaaa tgtctgcaaa taaatgccac
1801
       tagtccactg caatcttccc agattatctc cacctcttct ccctttggtt ggtataagaa
1861
       gtaataatga aaataaagtc aggacactgg gtgttagaaa tctacctttg taactcaaga
       tttcaatcaa agctttgaag cgcagaaaag ttaagtgact atggcctaac ctctctagac
1921
       tctggtcact tgcaaaatag ggattatgcc accaaacagt tttttcttg cgaaaataaa
1981
2041
       atatqtcaca aatataaqac ctaaccaatq qqaaaqaqaa aataaattta acttatatat
2101
       tgagtttctt tccaatttat ttcttttatg gtattattac aatataatta atgctttctg
       aacaaaagat tgagatataa gctctgaaag ttggcctaat actcttgagg aacaataaga
2161
2221
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       ggtatggaga cccaccaga accccagagt tgccacaaag attttaagct gaagatatct
2281
2341
       gagattcaac agatgcagga aaaaagcctt ctcggagttt ctctaatctg actaaaaggt
2401
       gcagetteeg agaaatgaag ttaccataaa taccetetga ggagtetgat ggeeecgaag
2461
       aatggaaaga ccagtcatac cagtttagac aaatgtcatc acaaacttta tcccccatct
2521
       cttctcctaa aaacttgtct ttcctgaaga aatgtacgtt tttctaataa aagctgtttc
2581
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2641
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2701
       aatctgtttt ttttgtcagt ttacttcaca ggcccgttac tgaacataca agggtggagg
2761
       aaaaggtttt tcttcgctta aaaggggcta gaagaaatct taaccgttta acagttgtgt
2821
       aactagcaaa ttacttggtc tctttatgga agagcttatt caactacaac gtaaaacggg
2881
       2941
       ggttcgtatc atgcatggcg tacagtttta ctattatata ctatcacagg agattctttt
       tittittitg agacagagte tegetetgte geecaggetg gagtgeagtg gegtgatete
3001
3061
       ggctcactgc aagctcggcc tcccgggttc acgccattct cctgcctcag cctcgcgagc
       agctgggact acaggtgccc gccaccacgc ctggctaatt ttggttttgt atttttagta
3121
3181
       gagacggggt ttcaccgtgt tagccagaat ggtctctatc tcctgacctc gtgatctgcc
       cgcctaggcc tcccaaaatg ctgggattac aggcgtgagc caccgcgcct ggccaagaga
3241
3301
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3361
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3421
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3481
       ggctgggact acgggtgcgc actaccacgc atggctaatt aaaaaaacttt aaaaaaagtt
3541
       ttagcagaga caagatettg ctatgttgcc caggetggtc tcgaactect gggetcaagt
       aatcctccca cctaggcctt ccaaagtgct gggattagag gcctgagcca ccacgtccag
3601
3661
       ctaatttctg ataatgattc tccaaaaaga ttaacagtaa aggcccccca aagtgaatta
```

### FIGURE 1-B

```
3721
       ttccttgcct ttggaattaa taaaactgaa aggagttaga agataatgtt ccttcatatg
3781
       tcttgtagag attattttt ctcataatca gaatccaagt caagaaagtt caaagtacac
       aagctgaaaa acccataaaa gtactttttt ggaagactaa taaggcaaac catagatcct
3841
3901
       qaaaqataaa aaacttaatt ctaccaaaaq cttacctttg tctctatctg tctgtcttgt
3961
       atgtatatat ataagattat caacaaggca gagaatccca agcctttagg aaagatacta
4021
       actgcaagat gctgattatc agagtgtcgg atgactcctt ttgtacttct taaaatccga
4081
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4141
       cttttcccca cctcttatta tctttgtatg aatgtgaggc tacttttaaa ttacttatta
4201
       ctggggctgg gggctgtggc tcacqcctgt aatcccagca ctttgggagg ccgaggcagg
4261
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4321
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4381
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4441
       qcaaqaqaqt qaaactccat cttaaaacaa acaaaaaaaa ttacttatta ctttqctaga
4501
       ttttgctaga gtagctattc cagaaagtcg aggggtgcag gaaagataga ggcacaggac
4561
       atttttacag gttttaaaac ccaaatactg tcacattatc tgatcctaca gaggcaggct
4621
       gctttatcca aatacgggtc ctctgctttt ctaaaccaaa ccacattatg agtgaaattt
4681
       tataccatat cctaaatttg tgccatcaca aacattctca acattccata ttttaactct
4741
       teceetettt eegtgtgget tetgeaagae eteagetget taaggagtet ttaeetetae
4801
       ttggttgtcc aggtatcata cctgccttct tagttttagt taatattaag tgaagttgtg
4861
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       ttgaggttag ggagcagata ttaagttacc cgtaaccata cctaaaaaqt ttatattcct
4921
4981
       tataaacata taaatgagag gctgtctata atactaagga accagtgact gtaactcggc
5041
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       ggtcccattg gcagatttgt ttctcacaaa aattaacgaa ttgacattct gacttcatac
5101
5161
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       aattttcccc tgtttagtta ctaagcctaa aaggccaagg ttttactaga ttgatagaac
5221
5281
       ctcccatact taagaaagac caagcaatgc tcaacatgct gctttgatca gctaaaaaaac
5341
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5401
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5461
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5521
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5581
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5641
       catccaccat acttcaccat ctagacacac agtatactcc aaacttggca ttcttctctt
5701
       tattttaaat agcggcagta acagctatta gaaacatgtc ttaaatcttg atattaataa
5761
       ttataaccta attcaaaagc tagaaaaaat ctgggtgacc taattttttt gggcattatt
5821
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5941
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6061
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6121
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       qqqaqqctqa qqcaqqaqaa tcacttqaac ctqqqaqqca qaqqttqcqq tqaqctqaqt
6181
6241
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6361
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6421
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       taactataga caataagaat gttattacct tcaggtcgat attgtgcaac aattgtgaca
6481
6541
       gcctggccag catttttcaa tgcagctgct gcctgctcat gactagcagc tctgaggtca
6601
       acactgttta cctgtaaatc aaaccaaatc ttaatttggg agaaaagaat cactgtgatt
6661
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       ttaccactaa aatgtttctt gttctgattg actaaaaata tattgtgtag taaaacaaaa
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6781
       tattatcatt caaaqctatt ttatttacta aaaccacctt qcttaatqtc aaqttaqtaa
6841
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6901
       tgagaacctg aaaaatcaag tggcatcatt ttgcacactt tattttgcta ggaactcaag
       caatgggagg gaaagtcatt ttgcttgtag catccattta cctcctgcca cattctcacg
6961
7021
       cctactgctc aattcagttc caattatttt tcttcctgta caaactaaaa cttccattct
7081
       tttggtataa taggaaagct attatttaga aatattaaaa cagctcagat ttcaaggact
7141
       gatttaatta gaataaatgt taattaaatg aaccaggagt tattttttga attaagagcc
7201
       cttccttagg tgaaataatt atccaattct accagtaggt acaatcctac tccagaagaa
7261
       gaggcaactt aattettatt teteaaaggt taccaatact ttgegegeat atatacatat
7321
       atagtgcaag gtacattatc ttaagagatt gttccttttc cacaataaga caaacttaag
7381
       aggacattca tggaagcatt atacttgaat gtaataaact ttaaataccg aattaaaaaa
7441
       aattaagaag caacaatgaa tagaatatgg caatgttcag gaccttcact gaaaattttt
7501
       ggaaaggaac gatcatcatg caatttttac acaaaaactt gttttgttga gaactaatct
```

### FIGURE 1-C

```
aaaatctgtt aaagatcaca tatcactttt aaaaaatttg actatgagcc cagaaattct
7561
7621
       tgggatcata aatttacata aagaacattt taaccatata aagatctgat gttttatatt
7681
       atctaaaaag aaaccattat gcaactaaat ttaaatacat accccttgag gctgggcatg
7741
       gtggctcaca cctgttatcc cagcactttg ggaagctgag gtgggtggtt cacttgaggc
7801
       caqqaqtctc agaccaqcct ggccaacatg gcaaacacct gtctctacta aaaatacaaa
7861
       aattaqccqq qcatqqtqqt qtqtqcctgt agtcccagct actcaggagg ctgaggcatg
7921
       agaatcactt gaacctgRga ggcggaagtt acagtgagct gagatcacat cactgtactc
7981
       cagectgggt gacagagaga gggaegetet gtetecagee ageceeece acceeetea
8041
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       tctccaqctq atqatqqcca tataaaactc aatacaatqt ataaacaqtt ctacttaqtq
8101
8161
       cataaaqaaa atcctcccaa ttcctgggag aacatatcag gcaagaaata taaagaaaga
8221
       caggtttttc acagattatt gtagaaaaga ttaagaatgt taatgaatta tttctgtgca
       ccaaactctt ttaagagcat aatttgttga acaaaactac atattaaaga ctttccagac
8281
8341
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8401
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8461
       ttttaaaaat ggagaaataa ttcgcatacc atagaattca catttttaaa gcatatagtt
8521
       tagtggtttt tggtatattt gcaagtctgt gcaaccatca ttaccaccta attccaaaat
8581
       attttcatta ccccaaaaag aaactctgta tccactgaca gtcactcctg tgtctcctct
8641
       ccatccctgg caactacgaa gctactttct gaccatactg tacatatacc tatatatacc
8701
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8761
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8821
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8881
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       gagatcgaga ccttcctggg taacatggtg aaaccctgtc tctactaaaa atacaaaaaa
8941
9001
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9061
       gaatggcgtg aagctgggag gcggagcttg cagtgaacag agattgcgcc actgcactcc
9121
       agcctqqqcq acaqaqcaaq actctqtctc aaqaacaaaa aacaaaaaaa ccaaacccaa
9181
       aaaaaaaagg atataccact tttgttgatc catgtcctta aatttatact taagtatttt
9241
       attetttttg atagtattat aaatcaatgt tttetttgte tateetgeaa atttaactga
9301
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       tatgtcatct gcaaacagaa atagttttct tgctttttat tctggtagcc ttttttttt
9361
9421
       tttaatcttq cctaatttct aqaacctcca qqacaatqtt qaataqaaqt aqqaagagca
9481
       gataccettq tettqtteet qattttaqaq qqaaaqettt caqtetetca ccatttagta
9541
       tgatgtcagc tatagggttt ccagagatac cctttaacag gttgaagttc ccttttattc
       ctagtctatt tagtgttctt atcatgaaaa gctgttggtt tatgacaatt gctttttctg
9601
9661
       tgtctactga gatatcatgt gctttatgtc ctttattaag atggtgtctt actttgattg
       gtttttctat gttgaactaa ccatgcattc cttgaataaa ttccatttgg ttatggtaca
9721
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9781
9841
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9901
       taatactggc cacacagaat gagctggaaa gcattcctca tgcttattcc tttttgggga
9961
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       catctggtcc tgggattttt gtgttttgtt agtttttgat tactaattca atttccttgt
10021
10081
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10141
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10201
       aatgatatac tataaatgtc tttcgccttt agtaataatg tttttcttca agcgtccttt
10261
       qatattagtc atattagtac agccacagta ggtgtctttt ggttactttt tgtgtaatgc
       atcttttcca cccgtttact ttcaaccttt ttgtgtcttt gagtctaaag tgtctctctt
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10381
10441
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       atattaaata gatattteet agtgtaccat tttaatteee atgteattaa ttttaetaea
10561
       tatatttgtt agtcattttc ttagtggtta tcttggatta taagtaaaaa tttaaagcca
10621
10681
       gatgtggtgg tictagactg taatcccagt gactcaggtg gctcaggcaa aaggactgaa
10741
       qcaqqaqcat cacttqaqta caacactttg agggctggct aggcatcaca gtgagaccct
10801
       tatctctaaa aaaataaaga aaacaattca gccaggtgta gtggtgcata cctgcagccc
10861
       agctactcgg gaggctgagg cacgaggatt gcctgagtaa gtttgaggct gcagtgagct
10921
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10981
       ataagtaaac aaacaaacat tttataagaa cctagtttct ttacccgcct tgtggtgttg
11041
       tcatattaat tttatgttta tacgatgtgt gcacatcaaa tttgtaatta ttgctttatt
11101
       cagttgtttt taaaatcagg ttggagaaaa aaagagttgc atataaaaca atacccttat
11161
       gttgttttat atttacctgt gtagttgcct ttacttaggc tctttatttc ttcatgtgga
       tttgagttac tctctagttt cctttcattt tagtctgaag gattctctta tttcctatag
11221
       qqcaqqtttt tgaqaqatga actccttcag cttttgttta tctggcaatg tcctgatttc
11281
11341
       ttctttattt tcaaaagata gttttgctgg atatagagtt ctagtcaaca aagtttttt
```

### FIGURE 1-D

```
11401
       cttttcagaa ttttgaattt gttatttcac tgctttctga cctccatggt ttctgatgag
11461
       aaatcagcta ttaaccttgt tgaggatccc ttgcacgtgg tgagtcattt ctttttgcta
11521
       ctttcaatat tctgccttcg gctttagaca gttcgattgt aatgtgtcta tgttgtagat
11581
       ctctttaaat taatttaact tggagttcac tgaggttctt ggattaatgg ttttaatcaa
11641
       gttctagaag tttttgggcg agtatttatt caaatattct ttcttcttt ttctctcttt
11701
       cccatctttc acatactccc attatgttgg taaatttgat agtatcccat aggtctctga
11761
       agctgttaat ttttcttcat tctttctttc tttgttattg ttcagttctt cagcatcaaa
11821
       atctcaattg acccatcttc aagtttgctg attctttctt ctgccagctc aaatctgctg
11881
       ttgaccttgt ctagagaatt tttcatttaa gttactgtac tttccaactc cagaatttct
11941
       atttggttct tacatataat ttctaactct ttattgatat tttttacatg gtgagatatt
12001
       gttcctttac tttcatgtca gtctacagga tggttttctt ttattccttg aacgtattta
12061
       aaatacctgg tttaatgtct ttgtttagca tgttcaatgt ctgaccttcc ctaggaacga
12121
       tatccattga ttgcgttttt ctcctgtata tgggccatac ttttctttcc gcttgtctca
12181
       aaattttatg acgaaaaata ggcatttaaa ataaatataa tacggcaact ccagatagca
12241
       gaactgtcct cttatctacg cttgtcattg ctgtctgtta gtgacttttc ttaatgttat
12301
       aaaqtccqta ttctttqttq tqtqtqqcca ctqaqqtctc tqtctgqtta gcttaqtggt
12361
       taatgactga atacatattt ccttaaatac ctgaaactta caaatcttcc actcttttcc
12421
       aagggctata tgtgcatttt ggggcccacc tttaacactc agataagcaa ttaacaactg
12481
       ccttaaatcg cttgcacaga ggctcatgat caggtagagg tgagagttta aggccttttc
12541
       tagtctttcc tgagcatgcg cacagccctg aacatgtgtg tggccttctg gttccaagga
12601
       tacacggagg ttttcaaagg ccttatggag aattcactcc tccaattttc cttttaagtt
12661
       tattgatcgg tctactattt cctagtgctt ttagggcatt tccctagaga agttcagtaa
12721
       gcattaaaat tttaaggtta ctgatgcata ttgctaaaca taatgctgta tttaactgca
12781
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### FIGURE 1-E

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### FIGURE 1-F

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### FIGURE 1-G

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25561
       attaaaaatt aaataaagag gtcaggtgca gtggctccta tctgcaatcc caacactttg
25621
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25681
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25741
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25801
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25861
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25981
       agcaattctc ctgccttagc ctcccgagta gtggggactg caggcacttg ccaccatgcc
26041
       cgggtaattt tttgtagttt tagtagagat ggggtttcac tgggttagcc aggatggtct
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26161
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26221
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26281
       caaacaaccc teetgeetea geetgeeaaa taattgggae cacaggeaeg caccattgtg
26341
       cctqqctttt ttcctttttg atgtgaagaa gtcttaacat ggtaggaaaa tcagctctcg
26401
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26461
       ccctcctatt tccttcagat aaggagtatg taaacatgtt cgtgtgctga tggtaatgat
26521
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26581
       ctctgcagac aacaaacaat gacattcagt atacaaatgg aagacctggt tttcaacagg
26641
       aacaatqaca qtqactccca ttaaaacaca aqtqaaaqtc qaqtttcqqq gtaaaaatat
26701
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# FIGURE 1-H

26761	gaaatatgaa	gtgagatcat	cattcatgaa	tagtagatgg	caagtgaagg	tttgagggga
26821	gagaaaatt	ctttagagtg	ggagagtgaa	ttagggaaat	ataataaaac	tacaaacaaa
26881	agtaaggcac	tatctatgat	ttatggccat	acgtaaaaag	casaattttg	tgcttttctc
26941	catggttctg	ctttttagga	accataaatg	aaatagcaga	gtttgcctgc	accagtgttg
27001	aggastteta	ctacaaaaaa	gaagggggca	aannacttna	anatotocaa	tasaatasac
27061	atgagaaacc	atggaatcta	agctaataca	aatagaaaaa	ttgagacaag	gggcaacaaa
27121	ataataatgt	caaatgactg	aaggtcaaaa	tgagatggaa	ttactagaat	agaggtgaat
27181	-					
			acaatgggat	-	-	
27241	gttaataatt	atagataaca	aaatctaaag	tattatctta	gaagcaagta	actgagttga
27301	agtggagggc	aggatagtca	gaaagagatg	aagaaaccaa	aaagtcaggg	tattagataa
27361			acatgaccag	-		
27421	gacaatgggc	cttcgcacta	aagtcttcag	tgactacagc	cagactgatg	aagagaacac
27481	cagatcacca	caqccaqqqa	tagagagtaa	gctgaatagc	ctgacagcag	ggtgactgtg
27541	-		aagtaaaact			
27601	gcttttcaaa	aaacacaaac	agattgttta	tgaattgcat	atgcagaagt	gtacaacgaa
27661	acccacatct	acagttgcct	aagaagggaa	gggactggaa	gcaaaatatt	atgatcaagt
27721	tgaaactgca	aggtgaatgt	cagctttttc	ataatocttt	attauttcaa	taacadatdd
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27781			gctgggctcg			
27841	ggaggccgaa	gtgggtggat	catctgaggt	cgggagttcg	agaccagcct	gaccaaacat
27901	ggagaaaccc	catctctact	aaaaatacaa	aattagcagg	acataataac	acatacctat
27961	_		gagaatggct		2.2	
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28081	aaaaacaaca	taatcataat	cagggcacta	atactcaatt	catagaacaa	ctgtcacaat
28141			ggcagcattt		3 3 3	-
		_		_		_
28201	tggctcatta	tttaaaaaaat	acacaaagcc	tttatataaa	gtttatgtgc	tagaggaagt
28261	atatgtaaga	atttcaaata	agtagcaagg	ttcttttctt	tqacacaaaa	gaagtataag
28321	acaccatccc	tatacatcaa	acaggttaaa	tactattaad	gaaataatto	aattatactt
		-		-	-	
28381		_	agcagataat			
28441	atttcaaaat	gtcatgtttt	taactgataa	tgattagtaa	tataatgaat	cttgacagtt
28501	ctaaaattgg	aagcactgtt	actttaaaaa	tcaccaatat	ttctaaaatt	ctacaattta
28561			aggttatacc			
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28621	gttcttcaaa	cattaactca	atgcaaagaa	caaatacaga	tttcattttt	ccaccaatac
28681	aaacacatta	aaaaatatac	ttaaatctct	tctcagctta	tatatttaaa	aaactgaata
28741			gctcacgcct	-		_
28801			gagtttgaga			
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28981			cctgggcaac			
	_	-			_	
29041	aaaaaaaaa	aaaaaaaaa	aaaatatata	tatatatata	tatatatata	tatatatata
29101	taaagtaaga	aacctaaaaa	tacgtaagta	ctttaagaac	aatttaatca	actgcaacac
29161	aactgaactg	catacaaata	taagcactag	aacctgaaag	tacaaadata	aataqtatct
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29221	-		aaagaaaatc		_	
29281	gtttctcaaa	gtgcaggcca	tgaactagca	gcaccagaaa	cctcagaatt	acagacatac
29341	ctcagagata	ttacagttcc	ataccacagc	aataaagcga	atattgcaat	aaagcctgtc
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29461			aatacaatgt			
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29581			gatagccttg			
29641			aaaataagac			
29701	gttcttttac	aaaagatttc	cctgaagcat	gtgatgctgg	tttgttagca	ttttacccac
29761			tgaagtgaat			
29821			aaatcctttg			
29881	cacctaccag	gattagattc	catctcaaga	aaccactttc	tttgattatc	tataagaagc
29941	aactccttag	ttgttaaagt	tttatcatga	ggttgcagca	attcagtcac	atcttcaggc
30001			tcttattatt			
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30061			tcatccaaga			
30121	ttaatgctga	tattgtgacc	tcctcccatg	aatcatgaat	gtccttaaag	gcatctagac
30181	tagtgaatcc	tttqcaqaaq	gttttcaatt	tactttgccc	agatccatca	gcggaatcac
30241			ttataaaatg			
30301			gactacagag			
30361	catcagtctc	cctgcacact	gccatcatag	ctcttgggca	gctaggtgca	ttgtctcaga
30421			gtgttttttt			
30481			taaaccatqc			
30541	gctgcttcag	ccatagagca	caggtttcat	tacagttata	cagaacaggc	agacaggett

# FIGURE 1-I

30601	agcataattc	cttggatttt	ctggactggt	aaatgggcat	tggcttcaac	tgaaaatcac
30661	cagctgcatt	accaactaac	aagaaagtca	acttatactt	tgaagctttg	aadtcaddca
		-				
30721	ctgacttatc	ctctctagct	gtgaaagtcc	taaaaggtgt	ctttttccag	tagaaggctg
30781	tttcatctac	attqaaaaat	tattatttaa	tgtagccact	tccattaagt	atcatagcca
30841		-			tgctgcttta	_
		_				
30901	tcatgttata	gagatgactt	ctttccctca	acctcatgaa	ccaacccctg	ctagcctcac
30961	atttctcttc	tacagettee	tcacctctct	cagccttttc	agaattgaag	cacagttagg
31021		_		-		
					ggttggtttg	_
31081	accacttcaa	actttgtcca	caacagcaat	cagattgtct	tgctttctta	tcattagtgt
31141	gttcactgta	acagtacttt	taattttctt	caagaacttt	tccttggcat	tcacaactto
31201					cattgaacat	
			-			
31261	ctaagttaaa	tctttttgac	atataatgag	aaatatgcaa	cttttcactt	gagcactcag
31321	aggtcattgt	agatttatta	actggcctaa	tatcaatatt	gttgtatctt	ggggaatagg
31381					catcagagga	
31441					gtggttgtgg	
31501	caattaaaat	agtaacatca	aagactagtg	atcacatatt	actgtaacag	atataataat
31561					tgacacagag	
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31621	acatgaagtg	agaacatgtt	gctgaagaaa	aaaggtgctg	ataaatttgc	tcaattcagg
31681	attgccataa	accttcaatt	tqtaataaat	gtagtctctg	tgaagtgcaa	taaagcaaag
31741	cccaataaaa	tgaggtatgc	ctatacttta	cttottaata	gaatgaacgg	cttattcaaa
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31801	_		-		tttcaatatt	
31861	ctttagtgac	tgttacttac	ataaaagttt	gaaaatcctt	taaatgtaac	tactactata
31921	aaataataaa	ggtgaaaagg	atcccccct	tctaattata	aaaattttga	cttaaagtag
31981					-	
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32041	tttaaacttt	attatactga	gaacatttca	ctaatggcat	cacaactgaa	gaagtaagat
32101	aaatttaagc	aaacgtatgc	taacagactt	acagttggtg	atatcaggtg	gtgcatagcc
32161	atcattcata	tacatactto	tagattttac	cactttcaaa	taaacaaaat	cagatotott
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32281	aaaaaagtcc	caaaagacat	ttatgacata	ttcacttgtt	ctctgagttt	tggaaacaat
32341	ttcacgaaaa	gaaagggaaa	ataagagagt	ggtttaagga	aaataaaggt	atgccgaaag
32401	_				ttatcatgac	
32461	gttgaatgtt	aacagaatag	cccatcttga	ttccagtctc	catacctcct	attctcccag
32521	tcttgatttt	ctctcattct	taggcattta	ggaatgtgtg	tggatgcgtt	ttagacattt
32581	ttatctttaa	agaaatgaaa	acatactaaa	atttttattt	ttatgttagg	atttttaatq
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32641				_	aatagaatta	_
32701	acaaaacagc	tgcacagtag	cccattgtgt	ggctatatca	taatttatta	aagatcatat
32761	ctqttaatat	tcccatattt	agattggaaa	actattagaa	cacaattgag	cacaaatatt
32821	-			_	ctaccacaga	
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32881	gcccatctac	ttagaccttt	gccaacatta	aacattatca	actaatttaa	aaaatctgta
32941	aaatgatgca	tcttttaatt	tatacatcaa	ttagttttaa	atttctactt	tcgtaatact
33001	caadttgatt	ttttttcaat	tatttttdd	ccattcacct	atcttctgta	tagaaatata
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33061	-		-		aactaattta	-
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33181	tcttcctttc	tttttttt	ttttttttt	tttttttgag	acggagtctc	actctatcac
33241					gctccgcctc	
33301					aggcgcccgc	
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33481					ttttctttt	
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33541					agaagtggta	
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33661					atttcagcct	
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33721			-		ttttcaaagg	
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33841	tttattattt	ccaccettet	atttactta	ggtttggatt	gttcttctct	ttgatacatt
33901					gttttaaatt	
		_		-	-	_
33961					ttgtaccttt	
34021	attgcagttt	ttaatatttt	cacaaaaaaa	tgtaaaggtc	acagaataat	aatttccctt
34081					ggtcattttt	
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34201					aaatacacat	
34261	taaaataata	atassatsas	cattagatag	ctataacata	ctactaaaat	acacattaaa
	Lygcalacty	Cigadalaca	Cattadatay	ccgcggcaca	ccgccgaaac	
34321						
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### FIGURE 1-J

21111						
34441	atacacatta	aatagctgtg	gtatactgct	gaaatacaca	ttaaataqct	gtggtatact
34501		acattaaata				
34561	tatactgctg	aaatacacat	taaatagctg	tggtatactt	ctgaaataca	cattaaatag
34621	ctataatata	ctgctgaaat	acatattaaa	tagetataat	atactette	tttaataass
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34681	tacaataagc	catgcatcct	ggtattcaca	cccttgtaaa	aatctctttc	tacactgaat
34741	tttacttata	cacgtaacta	actttaacca	atgaggtaga	ataattataa	angaaagaga
34801	agattgataa	aaacaatgta	ccagtgcttg	tcttctttgg	aaagcttact	tttggaacct
34861	agccaccatc	ctgtgtgaaa	ctcaccctaa	ccacacaaaa	agaccactag	ataattaago
34921	acctggctaa	cagtcccagc	tgagttccca	gctaagagcc	aacttgccca	ccatatgtgt
34981	cagccaacct	aacagtggat	tttataacct	agtacagcaa	agacaagttg	ttcctgccaa
35041	-	atctqcaqaa		-		-
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35101	ctctgtgttt	tctcacatat	cactagatac	ctgacacaag	agctgacaca	atttgctgag
35161	ggatttaatg	tgaaatgtgt	aagatgatga	tcccaaaqtt	ttacqccaqa	gaaaagttat
35221		accagagtcg		_		
	-			-		
35281	gtaaaaagga	gaaaatggac	aaggagtgag	ttctggatta	cttcaatgtt	tagaggttac
35341	agatatgagg	aggcaccaga	catcagaaag	acagaatgaa	gagtggctac	taagaagaga
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35401	aataccaaga	taaagggtga	ClattaggCa	aatgaaaaag	tyttagaagg	aggaaggigi
35461	gtcaaactcc	agccagataa	gtcaattaag	atgaggactg	agaattgaat	gattccagtg
35521	taattaagag	aacaaaagcc	tcactaaaag	ttgatttaag	agagagactt	accacaataa
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35581	tatcagcaca	ggttgctgtc	tectaceace	aaagccagtt	ctagagaaac	cataaaggaa
35641	aacatggtag	ccaagaaatt	aaaaagtaaa	actgagaaaa	ctagtgcaac	agaaggctgt
35701	cttgactgtg	tttgtgtgtg	agtgatgagt	gatggtgaga	taatactaat	tatagtttga
35761	ggaaagagtg	gtgatcttag	ctgtgaaagg	ataagttaga	gaaacatagt	tcaagttctg
35821	ctctttcctt	ttcgccatca	ttaactaaaa	aaagtctcct	tqcaacaata	aacaqtacta
35881		agaacaaagg		-	-	_
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35941		acaggatggt				
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36061		ataataccaa				
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36121	aaaccagtac	ttgctagtat	atttttaaaa	accaacttcc	tactatgcca	gatccagttt
36181	atgtgccttt	tcagattctg	ctaggccttg	actacttact	cagtggagag	tcctgactat
36241		-				-
		tcatcttgtc	_	_		
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36361	gacctgtcat	accactgcaa	ctctaccatt	tttgggcttg	ggtgaagtgt	tataccataa
		-				
36421		ctggcttccc	_			
36481	agcttgggac	aaataacccc	tagggggtag	acaagagaca	ggagaataaa	agggccagca
36541	gataaacctt	tctttcttt	ctctqqatqq	ctagatataa	ggtttatgat	acccanatan
	-					
36601	tttttacagt	gtctgcctag	aagactgtta	tacatgacaa	gcaacaagct	accttataaa
36661	attacaqcca	gctcagacac	attctacctt	ctattggctc	tcgttcattc	tctgcttcac
36721	-	tactcactct			-	_
36781		cttcagattc			actgagacag	rrarraarra
36841	atatggtatg					
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37021	tgatagtgag tggcacgtct	ccttgtagga tgagtctcat ctctcctgct	ggtgattaga gagatgtgat ggcatgtgaa	tcacggaggt tgttttataa gaagggcgtg	ggctccccat gcatctggca tttgctttcc	cccatgtgtt gatgttctct tttccactgc cccaccctcc
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37021 37081 37141 37201 37261 37321 37381 37501 37561 37681 37681 37741 37801 37861 37921 37981 37981 38041	tgatagtgag tggcacgtct accatgactg acccagtctc tggacaaata aactttagct atactggaga aatactaaac gggctttcac tcaacctcct gtgtatatca ctgcccaggc gtgctaagat aagcataagt tagacattgt caacacaca aataaagaat atttaaacat aacagactac tctccaatct	ccttgtagga tgagtctcat ctctcctgct taagtttcct gggtaattct aattgcagta ctaagcaatg tgaaagtctc aaaattattt tctgtcaccc gggctcaggt ccaggtctgg tggtcttaaa tacagacaag ataacaagaaca tatactatta ttataaacct ggaataaaag taccaagaat catttagacc	ggtgattaga gagatgtgat ggcatgtgaa gagtctggtg tcatagcagt cagacataca atatgggtaa atacagtgca aggcatatgt agactgcagt gatcttctca ttaatttctg ctcctgggct tgtgagccac caaaatggta aggaattatg gaaaggtaa aaggaattatg gaaaggta cattttttag tttttggtat aaaggacaat attttgta	tcacggaggt tgttttataa gaagggcgtg agtcaattaa gtgaaaacaa gtggaatagt gtctcagtaa atagtgtttt atataattaa gcagtgggac cctcagcctc tattttttgt caagcaatct cacacccggc gatgttctaa aataaaaaag atgagagctag gatttgatac ggagaaattc agatttctta gctgcacctc	ggctccccat gcatctggca tttgctttcc accgctttcc actaatacac atgtagagat agcaatattg gaaaaagctt acttttttt aatcacagct ccaaggagct aggagacaggg acctacctca ctgattaaac ttcttggct ggtcatgcat ccaggagaaag agcaaggcta cagtatctat tacttactgc cttcaattat	cccatgtgtt gatgttctct tttccactgc cccaccctcc tttataaatt tgatgaagac aaaatgaatg agtgaaaaaa tttttgagat cactgtaacc ggactatag ttttgccatg gcctcccaaa aatttttaag gggtaattac aaacaaatga aagccctcaa agtattgcta ctagtaaca gtattgcta tagtattgcta tagtattgcta tagtattgcta tagtattgcta tagtattgcta tagtattac tagtataca

### FIGURE 1-K

38281		ggaaaacagt				
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38641	aataacaaca	ttgtctggtg	atggtgggca	gaaccaacag	gctttaaaaa	tgtgaatacc
38701	tttgttcttc	ttcaatattc	tatgaattaa	caattttaag	taaggaattt	ctgtaattcc
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38881	ccatcaatgt	tttaaaaatt	cagcaatcac	atcttaacag	tcctttactg	cagatgtaac
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39061	acaaatattt	cactctttta	atgctagaag	tcttcaatat	aagaatactt	aatacaaata
39121	gggacatatc	cacttataaa	acaaatagat	attttgttcc	ctacttttaa	aaactcttaa
39181	aaacatgctg	agcaaatatt	gaatataaaa	atcataaaaa	acttataaat	ttatatatat
39241		gtaaaatgta	_			
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39481		tcgcttgagc			-	
39541		cagggtgaca				
39601		gaacttttca				
39661	-	caaaaatcag			-	-
39721		aatactgtac	-			
39781	-	ttcttaaaqa			-	
39841	, ,	atttccatta	_	_		
39901		cctqcttctt	_			
39961	_	tttactYgta	-			-
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40141	_	tcaaaaacta			_	<del>-</del>
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40261	-	tacttcctgc	-		-	-
40321	_	tttatttagc	-		<del>-</del>	
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40441	_	tgtaaataac				
40501	-	agaaaactga		_		
40561	_	aagtaaaaat				
40621		gttatttttt	_			
40681		gaacttataa	_		-	
40741		ccttttccct	2 22		_	_
40801		catctcaaat				
40861		acaagettet				
40921	22	atgattaatt			_	
40981	, ,,	attataaaqc		-		-
41041		tgtttttaac	-			-
41101		acaaggaaat				
41161		atatcttcca				
41221	-	ataagaaaat				-
41221	-	atgtgtgatc				
41341		gaggaaatgg				
41401		cagagaggaa			-	
	-					
41461	-	tttctaYaaa	-	-		-
41521 41581		ataatatcta	_			_
41581		attatctcat	_		_	_
	-	tcgtgtttgt	-			_
41701		ggattcagca				
41761		ctcccctgt	-	-		_
41821		ccgtacctcc				
41881	-	attgagactg	-			
41941		ctgtactaac				
42001		aaattaaatg				
42061	cyaacayytg	aggttcaaga	adatacacca	aggaettttg	aaytatactC	cacayttett

# FIGURE 1-L

42121	tctttaaaag	tatgtgcaac	ttgtcgttgg	attagtcacc	catctqcaqa	ggtgtcactg
42181			tgcacctcag			
		-	-			-
42241	agacaaatgc	tgaagtgatc	ttcccgctgt	tatttctgag	taggcaaaac	ccatatactg
42301	ttttagcctt	taaaaaaggg	ggtggcgatg	gtgcttttct	tctqctaact	tgacatcagc
42361	-		tgtggctgct		-	
		-				
42421	tttaaccaat	atacccgatt	agcaaaaggc	attgtttcac	actgactgaa	agaccaacct
42481	gagaacttaa	cattggtgaa	ttttcttgac	agcaaagtaa	attttgccaa	agcageteta
42541			ctggagaaac	-	-	• •
	-				_	
42601	ggttcRactg	ctacaaaaag	cctttaaaaa	taattgattt	aaccaatggt	attaaaaaat
42661	gtttatttct	tgaagaatgt	tctaactgaa	tttcaggcaa	ctcaagtaag	caaatatatq
42721	-		tMgtattaaa			
		_	-			-
42781			aaaaaaatgt		_	_
42841	tcttaagaac	agtaccagtg	gattatggga	ggttaccaaa	ttacttaggt	actcaagttc
42901	ttcaaccagt	gaaaaataca	atgtatagtc	ctaactaaac	aaaaggaatt	taaaaggccc
42961	_	-	2			J 2
			ataatataaa			
43021	aaagtatgta	cagtacatta	atactgtgct	tacttgaata	ttactccagt	agccacccaa
43081	cttgagcaag	tgatccgaat	ttaagtagat	ggcaataaag	atatacatgt	aagagactct
43141		-	attctattcc		-	
	_	_				
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43261	ttccataaaa	tgctagccag	ataaggtggc	attactatta	taacatacaa	taaaaactga
43321	atgcagatat	tcttttttct	tttttttaga	cagagtetea	ctctqtcacc	caggctagag.
			-	~ ~	_	
43381		-	acctctgact			
43441	tagctgggat	tacaggtctg	cgttaccaca	cctggctaat	ttttgtattt	ttagtagaga
43501	cagaatttta	ccatattaac	caggctggtc	ttgaacttct	ggcctcaagt	gattcacccg
43561			gggattacag	_		-
					-	
43621	catatettaa	gaaaatttgc	acatctgaat	tgcaccttca	agtcattttc	tgattgggca
43681	agtataccat	aattagtttt	taatacagct	ctgtctgtta	gaagtatggt	tattttgcta
43741	даааадаааа	ttgatataat	gaccatgtta	ctagtatact	acttacttaa	tacqaacaat
		-	_	-		-
43801		-	taaacaatat			_
43861	gaaactatca	caatctagag	gggtctaagg	cggcaggata	actaaacgta	atgtagtttc
43921	ctggatgggc	ctctgagaga	gaataacata	aaaaqtaaqq	aaatagagac	ttcagttaat
43981			gtcttagttg			-
	_			_	_	
44041	taacaataga	ggaggctgaa	tccagagtaa	atggaaactc	ttgggactat	ctttacaact
44101	tctttgtaaa	tctaaaacta	ttgtaaaata	aaaagtttat	taaaaaaata	aggttactaa
44161	agaaaaggca	aatgttttga	aaataccttg	gccaatttta	tgaactggga	acttagaaaa
			_	-		_
44221	_	_	gagagatctc			
44281	tacaaagttc	tctagaacaa	cagattaaga	taatagtttt	taccctttca	agtgtgattt
44341	cttcatattc	ataatctgca	tctgtgccat	taacctacag	gggaaaagaa	aagcagctca
44401		-	ccaaaatggc	_		
	-					_
44461	aaaacctgtt	gaatgcgaca	gtaatcaaac	acaatagctt	cattttaata	attctgggga
44521	agattttcaa	ggaatggaaa	aatacaaatg	tgattaatga	gttgacaaca	ttcgtggtat
44581	catgactttc	aaatccagga	taggtacatt	cagcttttaa	tagtttcaac	ctccgatcct
44641	-			-	-	_
	-	-	tctaatcagt	-		
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44821	ccccactacc	caaatcacto	ttttaaacag	ctggatcttt	tttattttat	ttttttgaga
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45121						
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45241	ctatgggttg	gtaatcatgt	cttcgaatga	actgacccca	atgtactact	tcccttcatt
45301			tacataccaa			
45361		-	acttcgacat			<i>- - - - - - - - - -</i>
45421	ttcacttaca	tgttttatgt	caaaatcagt	caccattcaa	gatatcttgg	tcacaattta
45481		_	tagtctctcc			
			_	, , ,		
45541			gaatcagatg			
45601	tctcgtgata	tgaggctggg	caaaactcta	tctaaatcaa	atgtggactg	tgataaattc
45661	tacttctgaa	gatggctcac	atcttccatt	ccagacattc	ttttqcaata	taactaaatc
45721			ctctttcctc			
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45781			tggcacaaat			
45841			ttgcctttgc			
45901	ctataacato	agtaaaactc	aaacagccta	cagagagate	taaccaacag	agaaccaaaa
7001						

### FIGURE 1-M

45961	cccttggcca	aaagccccag	ctacactcct	aaccagcagt	cagcaccacc	aactatcagc
46021			gacctcccaa			
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				_		_
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46201	ataagctact	ttgctttctt	aaccatacta	taaaatgtag	cccttaattc	aggtctaata
46261	tagggaccag	gagtttcttc	cttgagaact	tttgaagccc	atctctacta	cccttttggg
46321			cctagattca			
46381						
			ctcttagaga			
46441		_	tacccaggct			
46501	cagcctcaaa	ctcctggact	caagtgatcc	tcctgcctta	gcctcttgag	tagctgagac
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46621	tgttgaccag	gagetegett	gcttgctctc	tctctctct	tcacacacac	acacacacac
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				_		
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47941			agcaaaagga			
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48061			gaaaacccag	_		-
48121			aacataaagt			
48181	gctgggataa	ttggctagcc	acatgtagaa	aatgaaactg	gatcctcatc	tctcacctta
48241	taaaaacatc	aactcaaaat	ggatcaaaaa	cttaaatcta	agacctgaaa	ccattaaaat
48301			aacccttcta			
48361		_	aacaaaaaca			-
	_	-		-		
48421		-	ataatcagca		-	
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49441	aaacaaaaaa	taaaatcctg	aagtttccca	tcctttaaaa	ttaaaaaaaa	aaaagaaata
49501	aaaggcatcc	agaggtaaac	tatctctatt	tgccagtgac	atgatcttgt	atatagaaaa
49561			gaggtaataa			-
49621			atattcccat			
49621		-				
			agcatcgtaa	-		
49741	accectgaaa	Leccageact	ttgggaggct	gaggeggget	ggatgattig	ayutuayyag

# FIGURE 1-N

49801	ttcaagatca	acctaggcaa	catggtaaaa	ccccatctct	accaaaaata	caaaaaaaa
49861	aaaaaatan	ccagtcatgg	taacacatat	ccatattccc	aactacatgg	gaggetgagg
	-					
49921	tgggaggatc	atcttgggtc	tgggaggtgg	aggttgcagt	gagctgagat	tgtgccaatg
49981	cactccagcc	tgggtgacag	agtgaaactg	tctcaagaaa	aaaaaaaaa	aaaaaaaqa
50041	-	atagaagtga		_		-
				-		-
50101	aagaacatta	ttgaaaggaa	ttaaagaaat	atacccatat	atttacagtt	aactgatttt
50161	ctatatggtt	gccaagacca	ttcaatgcgg	aaagaatagt	cttttcaaca	aacagtgatg
50221		acaaaagaat				
		-				
50281	aaaatgaatc	aaagaccaaa	atctaaaagc	aaaaccataa	aactcttaga	agaaaactta
50341	actctaaqtc	tttgtgatgt	tagattatac	aatggcttct	tacatacaat	acaaaaagtt
50401	-	aaatataaaa				_
				-		
50461	cattttctaa	agttttatcc	acttaaactt	caacaaaaat	gtagcagtat	atttttaccc
50521	catactqtca	ccagcagaat	gtactgacaa	actttttgct	cttttgataa	cataatqttt
50581	-	aattgtttta		_	-	_
		-	-	_		
50641		aattatgttg				
50701	caattcagta	gtttctagtt	tattcacaga	gttgtgccat	catcattact	ttctaattcc
50761		tattacccca				
	-			-		
50821	-	caccacctgg	_			
50881	tctggaactt	tcatataata	aaattatgca	acaagtggac	ttttgtccct	gatcaattta
50941	aaattacaaa	gttataacta	attattttca	tatatatgaa	tocacaaaaa	aaacctggtt
		-	_	-	-	
51001		tagtcattca	-	-	_	
51061	agcaaccaat	ggtcagagac	aaccttttgt	gaaagttagc	catcataatt	tctgaattaa
51121	attacqaatt	tctatttcaa	aatttctgct	ttacaaaagg	aaaaaaaaat	gaccaaagga
51181		acttaattta	_			, , ,
51241	ttaagagaaa	tgtattagag	aaaacaatgc	catggtcttc	gcatttgtat	caaaaaacgg
51301	aacaggaaag	gcagaattac	ttcaatgtgg	ggaggaaatg	gaacttacgt	aagttggtgt
51361	ttccaacta	tctgtgttga	ccantacton	aggaggattt	gcctttaaga	agaaattgta
	_				_	
51421		caagaaaata		-	_	
51481	aaagacttgc	tatttcttaa	gttataatct	tatatgagct	ttttatatgt	taaataatat
51541	atcetttete	cagcaccaaa	cagaaaaaaat	tatgtataag	cagttaaaac	agatttgctt
51601		aattgctatt	-	_	-	
	-	-	-		-	-
51661	tcaccatagc	cttctcataa	aacccatgaa	tattctttag	tgtaaccaat	aactcttcct
51721	aggttgctta	gaaatcattg	ttttctcttc	ccaaagatac	aqtaaaqatt	tcaatcattt
51781	catcacccad	gagaaaattc	ttccccacac	tgaactgttt	ttaaacaadd	222222222
	_		_	-		
51841	-	gaaagaaatc	-	<del>-</del>		-
51901	aaaaacccga	ttattttcag	ctgcaatgac	tgctttccag	ttattctaga	ccactcacag
51961	aattaacagt	gatttattac	agcaagaaaa	ataaqcaqaa	taacacacac	ctagttaagt
52021		aaaaaatctt				
52081	-	aatgcaataa	_			
52141	aaaattcttt	cttctgcata	tttaaagtta	tgaaagtacc	aagtcacata	acactttcag
52201	anaataaaaa	agatgactat	cctttaaaca	aactttagaa	gatatgetta	cacacattaa
	-			-		
52261		tcaattacct		_		_
52321	cacaaaataa	ccattttctt	ccaaatgtac	aggcttttaa	taaaggggaa	tattcaaact
52381	tcaaataaca	cattattttc	agcacagtac	cacagetaaa	tgatatgaca	aaatgcttaa
52441		gtttcatggt	-	-		-
	-					
52501		atgagtagct				
52561	tttatgttta	gtcccaccat	taaataatag	tctacctttg	aataattcgg	tgaaagtcca
52621	ctcaacaaat	aaaaattqta	cttataaaac	toctatttaa	gcaaagctac	ccaacttaca
52681		attttatgaa				
52741	ctcaaactgg	tattttacgt	tgctaaaaaa	attaataata	caacttcact	ttattctgct
52801	taagcaatta	cagaagaaaa	gggcaagaaa	gaataggata	tttaaaqtta	caaaagaaat
52861		aaacactatg				
		_	, ,			
52921		gaaaaagttg				
52981	agctgtttat	cagtaccaac	tcatcatcat	tttatagaag	ttaccttttg	attctattca
53041		ctcgctaata				
53101		taaaacaatg	_	_		
53161	acacgagttg	attgctgcag	ctggtgatgg	gtatacatag	agttcattgt	actattcttt
53221	ctacatttga	atatttctga	aattttgcat	aataaaaagt	aaaccaaaaa	atcactttga
53281	-	cagttttaaa	_	-		_
53341		-				
JJJ41	aaattaatat	+				
	gggttgctat				-	
53401		taagatactg ggccaaggct			-	
	cactgtggga	ggccaaggct	ggtggatcac	ttgaaaccag	gagttcaaaa	ccagtctggc
53401 53461	cactgtggga caacatgggt	ggccaaggct gagcaaaatt	ggtggatcac atgtttctta	ttgaaaccag agccttatta	gagttcaaaa ccgatgcttg	ccagtctggc ggtcaaatta
53401	cactgtggga caacatgggt tttaggggct	ggccaaggct	ggtggatcac atgtttctta tccttctgga	ttgaaaccag agccttatta atatccttgc	gagttcaaaa ccgatgcttg ccttttactg	ccagtctggc ggtcaaatta cctctacccc

#### FIGURE 1-O

```
53641
       atataaattt tagtaacaga ataagcattt ctatagcttc ctatgatttg caacatattt
53701
       tcttttatat tacttctcta gagcctcaca cagtccccct gggtaaagac aggtattgct
53761
       atcttttcac agatggagaa aatgaatttt aataataact gtgatttacc tatactcaaa
       tgtcactgag tggtagaggg aggtatagag agacctagaa ccaggtctga gattacaqqq
53821
53881
       tcacttgaac caaggtgcaa tgagggcttt ttcttcatct gaaataattt cacgtagact
53941
       ctttccaagt cttttagttg tagttgtttg attttccatg ttacctgttc tactactcgc
54001
       54061
       ctctqtcacc caqqqtaqqa ctttttaaaa ctcaagttta ggccgggtqc gqtqqctcac
54121
       gcctgtaatc ccagcactct gggaggccaa ggcgggtgga tcacgaggtc aggagatcga
       qaccatcctq qccccqtctc tactaaaaaat acaaaaaaat tagctqqqct tcqtqqcaqq
54181
54241
       cgcctgtagt cccagctact tgggaggctg aggcaggaga atggtgtgaa cccaggaggt
54301
       ggagcttgca gtgagccgag acagcaccac tgcactccag ċctgggcaac agagcgagac
54361
       tctqtctcaa aaaaaaaaaa aaaaaaaaaa aaqtcaaqtt tattqqctqq qcacatqqct
54421
       cacccaaatt ttaccattct atttcatcaa caaaggatct tgtagtgatt gctgctgtaa
54481
       cagactgaag cagccttaca aagtttcaga gggcaatatt acatttttaa aaatcgtgtt
54541
       aaaatacatt ctaagatcca attattttaa aataggtcaa aatagtttag aaaatccact
54601
       tttacaatct gcattgtatt tctccttctc agcattgatc aaagtttcat tatgttattt
54661
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54721
       atgcaaaact cacaaactcc agagaattct tcttagatcc taatttgaga cacattgcat
54781
       tcaaagttaa atgctatgac tgaggtgatc actgcaggtt aaaatgattg taaaaacaaa
54841
       tggggtggat tctggaaaga aggtagagta ggaagcacca caaatctgtt tctccacctt
54901
       gaacacaatt ttagtggcag catgtgtctg atgtagatgt ttttggaactt ggagtctact
       gaaggctggc aacttccagg tgaactgtag ttaatttcag tgacctgcag gcttagcaca
54961
55021
       gcagcagete eccaeactet ateceteagt caactgtgta eegeetgeac aagecaeggt
55081
       gggcagagaa aattacattc tccaaatact ggagatctgt gctctgaatg ctgcttctca
55141
       tcacaaaqqt qcaaacaqqc cctqqatact qctqttccac ctcctcctca ttqttqqaaa
55201
       ccccaccca acctcccagg ctgaactgac ttccaggaga ttgaaagagc tggaggcctc
55261
       cccttcctac acaccaattc aattttcttt ttcccctttt gggagccaga cattgaagac
55321
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55381
       ggggaaggca taggctcaga aaatatctaa gaagacccta cgtttacacc tgaggctgat
55441
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55501
       qaaqqaqaat ctqattttca qaqttaccaa attattaaat tcaaqtqtqc tqtttaaata
55561
       aacaagaata agtggcttat taaaaaaaat ataaatcaat ataaactgtt ccttaaaaaa
55621
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55681
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55741
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55801
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55861
       55921
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55981
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       ggagactgag gtgggtggat cactaggtca ggagatcgag accatectgg ctaacacagt
56041
56101
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56161
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56221
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56281
       aagaaaaaaa aaagaattaa aagatgtgaa caaaagcaag aaagtgctgt atgaacgaaa
56341
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56401
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56461
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56521
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56581
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56641
       cttctcagat ttcatgaaac acatgaatat aaacatccaa gaagctcaat aaacaataat
56701
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56761
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56821
       gattatcagc agacttcaca tcagacactc tggaggtcat atggcagtgg gtggaaatac
56881
       tcactgctaa aataagacga aaaaaaccca aacctgtcaa ctaagaatcc tatatccagc
56941
       aagacagtcc ctcaaaatta agggggaaat taagatgttc tctgatgaac aaaagctgag
57001
       ggagtttgtt atcactagaa ctgccctgaa agatgtgcta aaggtagcag ttcaggttga
57061
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57121
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57181
       ctgcttttgg ttttccacat gattgaagag accattacat tttcaaattt aaaaaaaaa
57241
       aaaacttagc ctagccaggc atggtggctc acacctgtaa tcccagcact tcaggtggcc
57301
       gaggcaggca gagatggctt gagcccagga gttcaagacc agcctgtgga acatggtgaa
57361
       accccatctc tacaaacaaa acaaaacagc aacaacaaca aaaattaacc aggtgtggta
57421
       ggcacatgcc tgtagtcatg gctattcagg agactgaggc gggagaatcg attgggccca
```

### FIGURE 1-P

57481	agaggttgag	gctgcagtga	gctgtgatgg	caccactgca	ctccagcctg	ggctacagaa
57541	tgagaccctg	cctataaata	aataaataaa	taagcctaat	attaataaac	aaaqtcaata
		acgaaaatca		-		_
57601		-	-			
57661	acttcatatt	ttgtctccta	cataatttaa	gaaacgaacg	cattaaaaat	tactagtttc
57721	tattttaaa	catacaatat	atgaagatgt	aattctqtqa	catcaacaac	tgaaaggggt
57781		cagttaaagg				
	222 2 2			-		-
57841	attgagatta	gaagtgtcta	ggatgttaaa	tgtaatcccc	atggtaacca	cacaaaatat
57901	aactaaagaa	tagacacaaa	ggaaacaaga	aagttaaatg	tttcactaca	aaaaattaat
57961	сааадассаа	agaagacagt	aatgcaggaa	atgaggaaca	aaaaagctac	aaggcatata
58021	_	acaaatagca			-	
	-	_				
58081	aaatgtaaat	aaactcttca	atcaaaagac	agaaattggc	agaataaaaa	ttttaaaatg
58141	ttccaaccac	aagctgtaca	caagagactc	actgtagatc	cagagacaca	aatatgctga
58201	aactgaagga	cagaaagggg	tatttcatgc	aacagtaacc	aaaggagagc	aggagtggct
	, , , ,	, ,,,,	_	-	,,,,,	2 2 2 2 2
58261	-	cagacaaaat	-	_		
58321		ataaaaggtt		_		-
58381	atagcagacc	atcaaaatgt	taagtagcaa	aaatgagaca	gaattgaaga	aagaaatggt
58441	totacaataa	tagctggaga	cttcaatacc	acattotoca	taatgggcag	aacaaccaga
58501						-
	-	gtaaggaaat				
58561	actctaacaa	taacagaaca	cacattcttc	tcaagtgcac	atgggaatag	aaggaaacta
58621	tgtcaaccta	agaaaaacca	tatacaaaac	acacacagtg	aacatcatac	tcagtggtga
58681	aagactgaaa	gcttttcctc	taagataagg	aagaaggcaa	gtatgtctgc	tttcaccact
		atgaccacta				
58741						
58801	aaaagaaata	aaagacatcc	aaattagaaa	ggaagaagca	aaattacttg	ttcacaaatg
58861	atatgatctt	atatgtaaaa	caccctaaag	attctacaca	aaaactgtta	gaattattaa
58921	accaattaag	caaagtagca	ggatacaaag	tcaatacaca	aaaatcagtt	gtatttcttc
58981	_	caatctaaaa			_	-
	_			-	-	
59041	aagaacaaat	tttcagaaca	ctgagcctcc	taaatgaaga	attaacttca	tcaagaaagt
59101	aaaaaacttg	ggcaatgaaa	actataaaac	atgtatgaaa	gaaattaaga	agacataaat
59161	aaatgggaag	ggatctgtgg	tcatagattg	gaagacttac	tattgcaaaa	atotcaatat
59221	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	aatctataga			-	-
	-	_	-		_	
59281	agaaatagaa	taacccatcc	taaaagtcac	atagaatttc	acggtaccct	gaaagccaaa
59341	atggtaatga	aaaagaaaaa	caaaggtggc	gggctaacac	ttcctgattc	caaaacttac
59401	tacaaagtta	cagtaacaga	aacagtctgg	tactggcatg	cagacagaca	tacagaaggg
59461	-	aatccagaaa			-	
	_	_	_			
59521	-	aaacctaaaa	_			
59581	actggaattg	tcaatgattt	cttggatatg	acacaaaggt	acagacatgt	cttgtctgta
59641	atctctgaca	agacatgaga	cccagaatac	acagaggaac	tcctaaaact	cgacgataaa
59701	-	ctaattaaaa	-			
				-	_	
59761	_	gacaataagc			_	
59821	tgagatgtca	cctcacaccc	actagcctgg	ctactatgaa	gaaaacagaa	aataaaaagt
59881	gttggtgagg	atgtggagaa	attggaatcc	ttgtgcactt	tggtggaaat	ataaaattct
59941		ggatgcagtg				
60001			-	-		
		ctgaagtcgg				
60061	tctacttaaa	aaaaaaaaa	aaaaaaaaa	ttagccgggc	gtggtggcac	atgcctgtaa
60121	tcccagctac	tcgggaggct	gaggcaggag	aatcacctga	acccgggagg	tggaggctgt
60181	ggtgagccga	gattgtgcca	ttgcactcca	acctagataa	caagagcaaa	actccatttc
60241		aaaaaaaaa				
60301		ttactctcac				
60361	acacctagta	ggcccctaga	ggacagagac	gatgttctat	tcatcttcaa	agcacatatt
60421	caaatatcaa	aaaagaccat	gcacaaaaaa	ttagctctta	aagcattttc	aacaatactt
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60541		ttactctagg				-
60601	agattatgtg	tttacactcc	cagtaagaag	aactagtaac	tgtcacctac	tctgtactca
60661	gtttctatgt	ggagaaactg	aggctctcag	aagttgagta	atttccacac	catcacacgt
60721		gaagctagga				
60781		aagcagccat				_
60841	_	ttgtagaaga		-	_	
60901	tctgaaaagt	ataaaagtgt	tctacaaatc	atgaaagact	atatactttt	taaaaagttt
60961	tcatctatot	atctttctaa	tttqcctqac	tctcaaactc	attttaaagg	agtcaggttg
61021	-	ccattttaat				
61081		gacagactag		_		
61141	taacgcatct	aaatgtaaag	tagtggatct	tttaagaata	catattcact	taatatgttg
61201	aaattgggtt	atatgttagt	atgtatttta	aattttactt	ggggacggat	attttagtcc
					ttaggaacac	
61261	attatttaa	LLLLacator				

### FIGURE 1-Q

```
61321
       gaaaatgagg tgcactcatt ggcttctcac ataacacaac aaaaatggta aaactatctt
61381
       tcatgaactt ccgtagtgta tttaaaacct aaagtgaagc tatgcagaat aaataggtct
61441
       tttttgtgtg tatcctcaat aaatatcctc atttaaaaaa acaaaacaaa acttgttcct
61501
       tagtttgctg tctcagagaa atatgagata acactaaaaa tatgggcggc taagattatg
61561
       tgccagtacc tgacgtgcat taagcatcct ctccatcact gtaaagcgcc tcaagttagt
61621
       actcctgtct atcttcagtg ttacagatga gtaaatggaa gtgcgctgtg gttaagtgaa
61681
       gtgtgcagtt acacaggtta agtggtagga ctggaattcc aaccccaggt cattctgact
61741
       ttaaaacgtg tatttttata agactatgca agatctcaac aattttcaaa tgcagtggga
61801
       tgctaagtta gggttgcttg gagtaaataa atgagagaat tctgaatagg aaaagacagg
61861
       ctcccaaatg aatataaaga gactggtaca aattctcaaa ggattccaga aaactatttt
61921
       aacaccaaaa aattgactga agtgagaaga gtaaaataaa ctttcaattc tattaaaaaa
61981
       aaaaaaaact gtactaataa actctatata tttggaaaga tgttacatta ttatgatgcc
62041
       ataataaccc ttaaactgtt tgctcagaat tatattttat ttataaattc aattttttc
62101
       ctgcaatata gagagaatat ccatttggat tcatctattc attgttggtt ttatgactta
62161
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62221
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       ttggttgtat ggatgttccc actgacttca ctttttagga gaggggaagg gcactgagat
62281
62341
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62401
       acacagcaaa catatgttta cccagatttt aggctacaga tcaataatgg caaaaaaaaa
62461
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62521
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62581
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       ctctctcaca tttggctatt atttttaaac tgttacacat aatttttaa aagtaaaatt
62641
62701
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62761
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62821
       aagaatgaat atttccaaag aagataaata tataacagga aacaaagtgt taaataaaat
62881
       gatacattgg tacaagatca ggagtacaat gatttttact aactttagaa gaataaagtg
62941
       ttctaaagta aaaatgttta aaaactgttt taagcagatt tctaagtaca aaggcatgaa
63001
       aacaaatcta aggttcaata ttatgaagtt cattgtgtcc catttcacag acaacctaat
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       agaacacaaa tgaaacatta aaagcaaatg aaatttttat aaagaaaaaa gaaactaata
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       acaaaaaatc aggaaaaaca ccaaaataaa agggaaacac ataacaaaaa gctgtgccat
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63421
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63481
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63541
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63601
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63721
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63781
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64081
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64141
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64201
       attaagattt attaacaatg tatggagtct cttcaacaat ggtgctgaga caactggata
64261
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       tcaaaattga ttaacaacct aaatatgaga tttgaaaaca taaaactctt acaagagaac
64321
64381
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64441
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64501
       accaagcaag tgaaaagaca gcctacacaa tgggagaagg tatttgcaaa tcatacacct
64561
       gataagggtt taatatccag aacatttaaa gactcttaca acgcaacaac acaaagagaa
64621
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64741
       64801
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64861
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       ccatagaatc agcatctgat ctagcaattg ggtaggtaaa tatgcactgg gtaggcatat tcccaaaagt gagagcaagg acttggacac ttgtatgcca atgttcaatg cagcatcaca
64921
64981
65041
       cacaacagtc aaaaggcgga aagaaaccac gtgtctatca ggagatgaac ggatacacaa
65101
```

			FIG	URE 1-F	2	
65161						
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65401	ccaaagtgtt	gagattacag	gtgtgagcca	ctgcacccag	ccctaggaat	aaaattctta
65461			agcctttaaa			
65521	-		acttaaaaga			
65581			taaaaatgca			
65641 65701			tttagggaaa ggcacagtgg	-	_	
65761	_		aggtcaagag	_	_	
65821			aaaaatacaa	_		
65881			gctgagacag			
65941	tgcggtgagc	ctagattgcg	ccattgcact	ccagcctggg	caacagagtg	agactctgtc
66001		_	tctaaactct		_	
66061		-	tatgttttaa			
66121 66181			cttctatttg aaaaatgaaa		-	
66241			actttcggag			
66301			aacatqqcaa			
66361		, ,,	agctaggtgc	_		
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66481			gcctgggcaa			
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66841	_		tatgatcttt			
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67021			gtgatgatac	_		_
67081			atggctaaaa			
67141 67201	-	-	aagcctccgt aaaaattctg			
67261	_		tgcaatattt			
67321	_	_	tatgaatgca			-
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67981			tacactaaaa			-
68041	_		ataaatatag	-		
68101 68161			tggatgcagc atactcattc	-		
68221			atcccaacac			
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68341			gtggcgggca			
68401			ccaggaggca			
68461			agagcgaaac			
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68581 68641			gtagacatct agaagttggc			
68701			agaagttggc		-	
68761	-	-	aatacatcaa		-	
68821			atgtaatgat			
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68941	agtgaaacgt	ccattccagt	ggatgaatgg	gatatactca	tacaaaagtg	tctcctttca

### FIGURE 1-S

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69061	caccaccagt	aacgggaaaa	atcaaaatca	tatatcatgt	gataaaatgt	aatgagagta
69121	caatacttcc	aggatatttc	taccaaaggt	atataacttg	aatctaatca	ttaaacatca
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69241	aagtcatgaa	agtctaacgt	tatttttaat	tcaattttat	tctagtttaa	aaacaacttt
69301		aagtgatata				
69361		atacatctat				
69421		cttccttqtq				
	_			-		
69481		atttttaag				
69541		ccctaacaat				
69601		gtacatgctt				
69661		tctccaaaac				
69721	atcccacttg	taaccctctg	tctctgagcc	tcttctagaa	tcaccttctt	tagacgagga
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69841	agggcactga	ccaagttcct	tgaagaacat	aggcccctgc	ctcttcctta	aggccaacac
69901	cgctgagaaa	gtcaacgacg	catcaacaca	cacaattccc	taatcacaac	tgataaccaa
69961	ttctggtaac	aaacaattac	agaacaacaa	agtaattcat	ttagttcact	tgaaacaaaa
70021		aaacaaataa	-	_	-	-
70081		tcacaggatg				
70141		attctaaatt				
70201		cagtaaccat		_		
70261		cttatataac				
	_					_
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70741	acatacagcc	atttgcatct	gttctgcaca	tccacattta	tgaccatgta	ccgccctccc
70801	tcactttgat	tcattgaaaa	ataaatgtat	attgaatgag	cctactactt	ttattaaagc
70861	cttttctqct	taaagcactc	aagtggtttt	cattatgtgc	atatgaaccc	tgattaatac
70921	-	agaagggaca			-	-
70981	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ctgaatggtg		_		
71041		ggtatatctt			_	_
71101		agccactaaa				
71161		tatctaaata	-			-
71221	, , ,,	agatgcaact				-
71281	_			-	_	-
	-	ttacattaac	-		_	-
71341	-	tactgtatct				
71401	, ,	acacaggtaa				
71461		aagaatagta	-	_	-	-
71521		tcacaccggc	, , ,			_
71581	_	cccacttata			_	-
71641		gatgacgccc	-	-		-
71701		tgttgcatag				_
71761		tgggcattta				
71821		cgttcatgtc				
71881		ttgctgggtt				
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72001		aaacttgcca				
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72121		catgactgtt				
72181		actgtttttc				
72241		tcagatgcac	-		-	
72301		acagetteet				
72361					-	_
		tgttgcaatt				
72421			gttgtCttCt			
70401	tccagaatgg			++-+		++++
.72481	ttaagtcttt	aatctatctt				
72541	ttaagtcttt aatgagatat	aatctatctt atgaattagc	aaatcttttg	gtaccaatat	cttagatggc	aaggaaaagt
72541 72601	ttaagtcttt aatgagatat atcaactgtc	aatctatctt atgaattagc gtgtcactgt	aaatcttttg gggttagtaa	gtaccaatat ggatcttatt	cttagatggc ttggttttgt	aaggaaaagt atggcataat
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72541 72601 72661	ttaagtcttt aatgagatat atcaactgtc taatattcct gcatgtttct	aatctatctt atgaattagc gtgtcactgt aatctaagtt	aaatcttttg gggttagtaa ctttggttct gtcaaagaag	gtaccaatat ggatcttatt ttgtttaaag ctatttaaaa	cttagatggc ttggttttgt atgtattatg gtaagagaga	aaggaaaagt atggcataat ctgtaatgtg aactaaaaaa

### FIGURE 1-T

72891 tatggttta ggaatcatg tactaacgg gggccagta cottcagaaa aagctgattt tatggttta aatctgtttt titattcaaa tgtcttttgg toctgtcact goaacaagtg 72961 atcttcaca taagcggta tagtaaaaa caacaatat gttatttgaa caagtttgt 73021 acaaatcac taagggtat aatctacaca caacatatat aaaactaaa cacatttta 73201 acaaatcac taagggtat aaaatcacta aattttaaaac aaacaagga aataggaaca 73261 ttctcacac cotcatatag atctatcaca atcggtat gttcacacag acatgagtat caagttcagt atctatcaca atcgattag gacagatcac tagttcatga atctatctca attatggta cacagatcac tagttcatga acacagata attctacacag attcatacac acagttcag acagatcag acacagata attcatcaga acatgagtac acagatcaga acacagaaca tttcacaagt acacagacacac tatgttagg acacagacacacacacacacacacacacacacacac							
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### FIGURE 2-A

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### FIGURE 2-B

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### FIGURE 2-C

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#### FIGURE 2-D

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#### FIGURE 2-E

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#### FIGURE 2-F

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### FIGURE 2-G

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26641
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### FIGURE 2-H

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26881
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26941
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27001
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27061
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27601
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30481
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30541
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### FIGURE 2-I

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31681
       31741
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#### FIGURE 2-J

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34621
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34681
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38161
38221
       atgtgtaagt tatttttaaa atgtttcttg ttttctcagt gaaataggaa gcaaagccat
```

### FIGURE 2-K

38281	+	tgggacagtg	aggagttaga	astttaaaas	aaaaaaatta	tataaattta
38341	tttgggagaa	taaactgaat	aaggaaacat	atacctaaaa	tatatatgta	tacacacaca
38401	gacacatata	tgtatatata	cacacacata	cacagcaata	agaccacttg	atattagtgg
38461	taatgaatat	aaagagctca	ttaatataaa	tatattcata	tgaatatgat	attagtggta
38521	_	ttactgagaa			-	
			_			
38581		agattcctgg		-		
38641	tttggcagtg	tttgttacat	tgatcactga	tgatcacaaa	catgttactg	ctgcttatat
38701	ccatgaatgt	cattgctgat	gtgtgataca	gtcatgatga	gttctgtcag	ttttggtgat
38761	tctcttatga	tgctgagggc	actateteta	tttttctcta	cttcattata	atoctoaota
38821		ttcttaagtc		_		
		_				
38881		tttaggccag				
38941		aatcgtacac		-		
39001	ctagggtttt	ttgctgttgt	tgttgttgtt	aagtgatgga	gtgccccagg	cttgcctcaa
39061	actcctgggc	tcaaacaatc	ttcttgtttc	agcttcctga	gtagctgtga	ctaaaggcat
39121	taaaggcata	tgcctgccct	tacagtagtt	ttcactttct	tctagcacaa	tctgctggag
39181		ctgccccctg			_	
					_	-
39241		tactcatttt		-		_
39301	<del>-</del>	ctttgagggt	_			
39361	tggtctcaat	gtctcacatc	tataatagta	aagcaactct	tttactatag	cttttacttt
39421	aggacacaag	cttgagtcca	ctggggacta	gttccatgta	catttcaaaa	tgaccctcgc
39481		gttgtttttg				
39541		tagattcatt	-			
	-	-		_		_
39601	_	atgcttacag				
39661		ctggaaaatc			_	-
39721	aaaaagtctg	aatcaaggca	gacaaatgag	atgatcaagc	tgagtggtaa	tgccaattaa
39781	gtcaacagga	tgttgtgtct	atataaagtc	atgtaacaac	tcttcttgtg	taattgattt
39841	aactgacttt	gatggcagtc	caaqttataa	atatttttga	gactttgcta	atgataactc
39901		taaaactaat				
39961		aaggagaggg	_		-	
		22 2 22 2				-
40021		aatctttatt	-			
40081	actttatata	tgttccaagt	aaagatgcaa	aagatgcaaa	aaggtcaaaa	atacgttttg
40141	acttaaaaaa	ttacgctact	actttcatcc	tctagtttaa	ataatttccc	atttcccttt
40201	ttaattttgg	agtttctgtt	gtatgattga	ttttgtatgt	totattatta	gactttctgt
40261		ggagtatctt				
40321			_	_		
		tcttgctctg				
40381	-	tctcccaggt			-	
40441		acaccactac	<del>-</del>			
40501	ccatgttggc	caggctggtc	tcaaactcca	gacctcaagt	gatccacctg	ccttggtctc
40561	ccaaaqtqct	gggattacag	gcgtgagcca	ccacacccac	ccttatttac	cttttgtata
40621		tgaggtgtct				-
40681		agttttaaga	_	-		
40741		aatactttct				
40801		cagaagtttt				_
40861	ttattacgct	tttggtcttg	tatctaaaaa	gtcgttacta	tgcctgaggt	tatctagatt
40921	ttctcccgtg	ttattttcta	gttctataat	tttttaatta	taaattttct	taattaaaaa
40981	tttaaaaatt	tttataaatt	tgcatttcac	atttgggtct	gaatttattt	ttgttacgag
41041		gtctcggaat	-		_	
41101						caaagatcag
41161	_	222				gacctatata
41221		-	-		-	aagtcttgaa
41281	gttgagtagt	gttactcctt	tgacttgttt	tttttccttc	aatattatgt	tagctcttct
41341	gggttttttg	cctctccatg	taaactttag	agtcagtttg	cagtatctac	aaaattacat
41401	cctggaattt	tgattgggat	tttattgaat	ctatagatca	agttgggaag	aaatgacatc
41461						ttagttcttt
	-		_			-
41521		atcagagttt				
41581				_		acttgttcat
41641						agtcttgcta
41701	taattgcttt	ttagttccag	gaaatttttg	gctactcttc	cagattttct	acttagacag
41761						atatttttgt
41821	-	-				catccttgcc
41881						atgttagcta
41941						atttctgttt
42001						caggctggag
42061	tgcagtggcg	caatttcggc	tcactgcaac	ctctacctcc	tgagttcaag	tgattctcct

### FIGURE 2-L

```
42121
       gcctcagcct cccctaatgt gtataatttt aaaaggtgcc tcaagattcc tcatgcagga
42181
       gatgggaagg atcatccttt gagagacatt ggtttagaag aaagtaaaaa tggggggata
42241
       aaaggaactc tgcaatgtgg acgatgtcat gctggagctt agacagccac aggtgtaggt
42301
       caagggggga gccagagcaa tgtagaatga agtatggttc ctggtataag gcaaatatca
42361
       qqttqacaqt qaqqtttcta aaaattaaqa ctttttattt tatttattta tttatttttg
42421
       agacggagtt ttgctcttgt tgtccaggct ggagtgcaat ggagcaatct cgactcactg
42481
       caacctccac ctcctgggtt caagcaattc tcctgtctca gcctcccaga gtagctggga
42541
       ctacaggcat atgcgccacc acgcccagct aattttttgt atttttatta gagacgggat
42601
       ttctccatgt tggtcaggct ggtcttgaac tcccccgcct ctggtgatcc actcgcctct
42661
       gcctcccaaa gtgctgggat tacagacgtg agccaccgcg cccggccaaa aattaagact
42721
       42781
       ctgatgacaa aaattaacgg tgtgagcacc aatagaaggt tgagggtcaa tgcagatgga
       agcttgggta gtatctgcta aagagatgtg ccacctcttg ctccagctct tctactgtct
42841
42901
       tcagggtgat ttttctttct ttttttttg agacggagtc tcgctctgtc accaggctgg
42961
       agtgcagtgg catgatetee geteactgte geeteecage tteaaggaat teteetgeet
43021
       cagecteeca agtagetggg attacaggeg tgtgecacca cacccageta atttetgtat
43081
       ttttagtaga gatggggttt caccatgttg gccaggatgg tcttgatctc ctgacctcgt
43141
       ggtccgcccg ccttggcctc ccaaagtgct ggtgcatatc tgttcatatt attttctgct
43201
       taaaatcagt cccttaaaat aaagttcacg ctaatagcag gactctctga gatcccatac
43261
       cctgaccatt tgaatgactt gtctttttct ccagtgtttg ggggctttca tatatgcttt
       teettttace cagatteete ttgtteeaca aatataacet aaatacatag gtgttaagee
43321
       agtgtttacc gtttgtcttc ctgttatttg gagatttgaa aaatcttact tttaatttta
43381
43441
       tttttaaata ttttattgtg tatatttcag gtatacaata tgttgttatg ggatacatat
43501
       agatagtaaa aaggttactg tagtgaagga aatgaacata tccatcatct cacataatta
43561
       cccaattttt aaaaagttta ccaagtccat ccttctgcag aaattaccta tttttttgtt
43621
       tttgtgacaa gaacagctaa aatttacatt taacatgaat cccatacaca gtacaagttt
43681
       attaccttga attaattcat taaaatattc ttaattataa gtgacatatg agtagatatg
43741
       taaaaatagt tatgctgtct gtctcaactc tacttctctt tgcataggga atcactgtta
43801
       acaatttggt atgtatctac cccatctgtt gtaccttgtg taccaggggt tttttaactt
43861
       tattttatta tgtagatata tgtcctctgt ggaaaacatc agtagaaata agctaagaaa
43921
       acatetecca gttgggettg gtggeteaeg ettgtaatee eageaetetg ggaggttgag
43981
       gtgggtggat cgcttgagct caggagtttg agaccagcct gggcaatgtg gtgaaaccct
44041
       qtctctacaa aatacagaaa aatcagccag qtgtggtggc ttgcgcctgt agtcccaact
44101
       acttgagggg ctgaggcaga ggatcgcttg agccagggag ttcaaggctg cagtgaacca
44161
       44221
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44281
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44341
       tcatacatat acacaaatat atatttttaa tttaatagcc aataatatgc acactcttct
44401
       tataatctgt atacctctat tgtcactatg gtttctccac accccacagg atccattcag
44461
       gtaccatgag ttgcacttgt gttatatctc tttagtctcc attaatctag aacaattttt
44521
       ctgccatttt gtggtgttca tgatgttgac atattgaaga atcttagttt ttataatgtc
44581
       atattgaata tototoagto tggatatato tgattgtttt ottgtgatta gattoagttt
44641
       aaatttttt tttttttgt aagagtattg tgctggtgtt tagttcccat tatatcacat
44701
       caaaaqacqt ataatqtqqc tqqqtqcqqt qqctcatqcc tqtaatccca gcactttqqq
44761
       aggccgaggt gggtggatta cttgaagtca ggagttcgag accagcttgg tcaacatggt
44821
       gaaatcccgt ctctactaaa aatacaaaaa ttagcctgta atcccagctg gttgggaggc
44881
       tgaggcacaa gaatagcttg aacctgggag gcggaggtta cagtaagcca agattctgtc
44941
       45001
       caatttattg cattattggt gatagtttag gtgatgtcaa ccacagacct cttaatttta
45061
       aaggtttttt ttttctattt gtaattaatg ataaatctgt ggggtaataa ctttgagact
45121
       ctgttaatat gccattctct agcaactttc cacttaatag ttttagcatc cttgtcaaag
45181
       tcactgatta caattacact gattacatat gtaggctgca agatggaaat ttgctaattc
45241
       caattctaat tcctcctaca tttattagga agcatttact gtgtaaagaa attctcttcc
45301
       ccttttttc cttttcagta ttactgtgag ctcatatgtt ataatctatt aactgattgc
45361
       tgtttctgtt acttattaca ttgtccaaRt ttgaccagtg agagtccttt aagaaggccc
45421
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45481
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45541
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45601
       tcattctttt taatgataca tagaatggct caaccataat gtacttattt ttttgtttca
45661
       agtttttcac ttatatatag tgctgacaaa catgtgccat gtatatatat gtaataattt
45721
       ctgtgggata gatacctaga agtaaaaatt ctttttttt tttttttt tttttgagac
45781
       ggagtctcgt tctttcacca ggctacagtg caaaggtgag atctcggctc actgcaacct
       ctgcctcctg ggttcaagcg attctcccgc ctcagcctcc tgagtagctg ggactacagg
45841
45901
       catgcgccac ctcacccggc tatatttttg tattttgagt agagacgggg tttcaccatg
```

### FIGURE 2-M

```
45961
       ttggccaggt tggtctcgat ctccagacct catgatctgc ccacctcggc ctcccaaagt
46021
       gctgggatta cagggaagta aaatttctta gtcaaaagat aagtgtattt aaacttctaa
46081
       aaaccatttc cagattgact accaaaagga ctgtactaat taccaacaat gcacaaacta
46141
       cttgataaca ttgcatattt gtaaattttc ttttattctt ttggatataa tctctttatt
46201
       acaatqtqca ttcaccttat taaqaatqaa qtttqqcatc ttqtqqccat ttqccacatt
46261
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46321
       aaaacataca catatattta gaattagcca gctggactca gtttagatga tcccaatttt
46381
       gttggcaaga ttcaaagcat tgtaatcagg agccagtcga acatatgcct tcttttctcc
46441
       atcaggccga attagggtgt tgacaccttg gccacatcaa tgtcacagag ctccttcaca
46501
       gcctgtttga tctggtgctt gttggcttta acttcctcag tgaacacaag catgttgttg
46561
       tettetatet tetteatgge agacteagtg gteageagaa aettgatgat ggtatagtag
46621
       tcaagcttgt ttctcctggg ggagctYttc cgaggatatc tgggctgcct ccagagtctc
       agtgtcttgg gctgctggaa ggtgggtgac atgcggatct tcttttttgg tggctgtgga
46681
46741
       cacctttcaa cactgccttc ttggccttga aagccttcgg tttggcttca gctttaggag
46801
       ggacaggagc ttccttcact ttcggcactg tcttgtgaaa agcatagtca tttcttgtcc
46861
       tggcgcggtg gctcacacct ttaatcccag catgttggga ggctgaggca tgtggatcac
46921
       ctgaaqtcaq qaqtttqata ccaqcctqqt taatqtqqtg aaactccctt ctctactaaa
46981
       aatacaaaaa atttgccagg tgtggtagtg ggcacctgta atcccagcta cttgggaggc
47041
       tgaggcagga gaatcgcttg aacccaggag ggcttgaacc caggaggcgg agattgcagt
47101
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47161
47221
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47281
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47341
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47401
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47461
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47521
       tgcttacagt gacagacttc catattgtaa ttcagccatg caatttttaa aaaacatggt
47581
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47641
       aatattaaat aaaatgtgga aaatatagaa cagagagaag aaaaaaacat ttctaattgt
47701
       cctcatatcc agacagccat agtattttgt tgcatttctt ttatctcctt ttttttgaga
47761
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       agtatqccaa atttcqctta ttqaatttat aattqtttac tqtaattact tttcagagtg
47821
47881
       ctcacttcat ctaaatctct tttctttttq aaatttqagq gctqcaqtqt gtcacttagt
47941
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48361
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48421
48481
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48541
       tttcatccaa aataatcccc ctgtcccatc catggaaaaa ttgttttcca cgaaaccagc
48601
       ccctggtgcc aaaaaggttg gggaccaatg ctttgggata tatttctgac aagtattatg
48661
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48721
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       cgaggtcagg agatcgagac catcctgact aacatggtga aaccccgtct ctactaaaaa
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48841
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48901
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       49021
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       tttaagtttt taaatggcaa cttttatata cctgttttat atataccgaa atataattag
49081
49141
       gatagatatt attaaacaca tactgcagat gaaataacta agcttcagag atttggtttg
49201
       ttcaaagtta cacagctaga agatggaaga ctgaaagtcc actggcccct gtgtgaaaag
49261
       ctgaatgggg aacatttcca ctgatttgaa ttatccatac ctttgtacaa ctcaaaacaa
49321
       ttgtaaacac atatttttat tttcttaaat atgagttgtg tacattgcat atattagtca
49381
       aagattgatg ctaattaaat ggccatagaa acatgtcttc tgtgttaccc attggaaaca
       cactgagcac atatgagttt tatgtgttta tacattgttt attttgttta cccatatgaa
49441
49501
       aaaqaaaata tgtttcccat actcatgttt tatatggaag agagaaagat tttagaacgt
49561
       atttagtcac taattaaaat gaattggagc agatatacag tgctagaact ttggtctaga
       gctcagtaaa cccaacaggt atgacagaga aatatgggat aagtggcagg taaaagtggc
49621
49681
       aagtaaagaa ctctataaag gtaatgacac agtatggatc atttttcagg gacagtgaag
49741
       ctgaagaaaa aatacataca gacttgctgg ttgttctttg agcttgcaca acaccattct
```

### FIGURE 2-N

```
49801
       tccagattac aaaggaagaa tttcctggga atggatttca gaatcattcc taagattaaY
49861
       tgtaggaggt ttaaaactct gtgcaaatgt gcacgtttgc tatgtgtgtg gaatattctt
49921
       taaaaatata attgaaaatt ttotttatto tgaaaaagtg aactgotgtg atttacottg
49981
       atttggctga atgaagttaa taaattggat agctccttaa gggctttatt ctcttggtaa
50041
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50101
       tttgtaaata aaatatatat tttttcccat gtggtattgc atagcacatg gagaaaatag
50161
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50221
       ggaaataaaa ctgaccccaa gaataaaatt atatttcctt ttaattttat gatagtgcat
50281
       ttaaagtaat gtatatctac ccaaggtgat gaagatgatg attgccaacc acaatttaat
50341
       gacattaaag aaattaatga gttttgattc ctttgcttat cttgtgtgtt atagtctaac
50401
       tccttttaaa tctqttcttt qacattttat atgactttca gattgtgtgc gtatatatga
50461
       50521
       tatagtttaa tttgtaacta ttaatattaa ctatatttag cataactatt aacatagtat
50581
       atatgaaatc catatataca tatatatata cacacacaca tgcataatct gaaaaaatat
50641
       atatactttt ttgagacgag attttgctct gttgcccagg ctggttcact ggcaccctcc
       acateceagg cteaagtgat teteceacet cageetttet ageacetgag actacegtgt
50701
50761
       gtgccaccat gcttggctaa actcttttt gtattttttg tagagacagg gccttactat
50821
       gttgcccagg ctgatctgaa actcctgggc tcaagcgatc atcctgcctc agcctcccaa
50881
       agcattggga ttgcaggcat gaactacacg ccttggctga ctttcagatt ttattaaaat
50941
       tcactgttat aaaacctttg aatagcataa ggataacaat taaacagttg cttgaagcag
51001
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       tagttatgat ctatatttgg taagtagtgt tttaatgaaa tacttacatg taaccactga
51061
51121
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       ggctcttttc ctttctcgtg ggtgatttgt ttaactcagt attcattcat ttatatactg
51181
51241
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51301
       gctcctggtt gtctggttag tgtttaccag ttcaaataat cacatgatct tacattggat
51361
       atatataaac ttacccatat ggtgaagtct tttaggagac gatcatgtta aatgtttctc
51421
       actgtggctt atttaatgtc atcagtttat tgcgtgttac tttggatgcc ccttagaact
51481
       tggcaccaag acctaccctc ttagaataaa cctggtcaaa aggatgttgg gatggttgct
51541
       attttatctt taqaaatqac ctattttgag atgtaataaa tgtgtctcag gagactggag
       aaatgcccaa acctaaaggt gatacttcag gacaagaatt aagttgcaat gtgttcatta
51601
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51661
       tttagaggaa gggaaatttg ataataagtt agtgtatgtc cactaccatt tgggaaaaag
51721
51781
       aaatctattt aggagtcatg actatcatca gtagagaagt gtacttcatt gttggttatc
51841
       agtaagtagt tcagcatggt tttttatagt ctgaatgaaa tactctctca gaacttttca
51901
       atttccattt atcagattcc atgtttatta tactttggtg gtagtaataa caaactttta
51961
       ggcatcttga tgctgagaaa gttatttatg attatggatg tgacattgct taccagcaga
52021
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52081
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       ctgcctgaac ttcttattgc agctttgata aataatctac tcttttaaac tcaaaatcag
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       qqaaaatact ttaaaaattt taqqcaqatc tqqaaqccta aataqaaact ttaaatatac
52201
       agtcacccct cagtatacct agggaattgg ttccaggacc cctgcagata ccaaaattag
52261
52321
       cacatattca aqtcccacaq tcgqacctgg ggaacttggg ttatgaaaag ttgatgcttt
52381
       52441
       ctgcatataa gtgcacctga ccagttcaaa cctgtgttgt tccattgtca actgtaactt
52501
       gtaattccag agatgtatct aaggcaactt tgcttttgat aattggaggg caattgaatt
52561
       qaaqtatqac atqtcctact ctaaaqtqta aaqaqcattq ccaaqttatc ttgtctgttg
52621
       ggtgtgttca tgagaatctt taaggatttt tattacatta gctgcctaaa taatatgatg
52681
       aactcctctc agaatgttga gttttgtgag tgataagagg aaaaaagaga atgacatatt
52741
       gttttcatcc atttcagtta tagacaaatt ttcacagaaa gaataattta aaatttttga
       acagattaaa tacatcatag agttagagat tggctcagtt gtgcatggaa ctcagtctgt
52801
52861
       ctaatqttac tactctgaac ttttcaaact gttctatagc tttaggtgca taactttgct
       tttacaattg tattatacct gtttgtatta taatctgcca cctccaaaat tagatcaaag
52921
52981
       actttttqqt ttqtatcttt qttttqcatq aqtttqatct tttatatata tattttaqta
53041
       cctgctacaa agggacctca Rtaagtgttt gccaaccaat aattaatcta aattctttaa
53101
       tgacaacttg tatttttat attttatatt tttattttt atgagatgga attttgctct
53161
       tggcacccag gctggagtgc agtggcgcaa tcttggctca ctgcaacctt tgcctccagg
53221
       qttcaagtga ttctcctgcc tcggcttctc gagtagctgg gattctgggc gcctgccacc
       acgcctggat aatttttgtg tttttaggag agatgaggtt tcaccgtgtt ggccaggctg
53281
53341
       qtctcqaact cctcacctca qqtqatctqc ccacctcqqc ctcccaaagt gctgggaata
53401
       53461
       tttcccacct ttaatgcttt tacagtagga ctaaaactat ttttaaaatg tcatttattt
53521
       cattgtgtat actacattag gtgaaaaagt atataaaatg agtttatttc tgtattttaa
       tacgtttctt ataaaccatt ggtgtttcat atcttttcc tcatctcttt gctattcttt
53581
```

### FIGURE 2-O

```
53641
       ttcttttgtg attttatgtg actttaacaa aataaaccct atttaatcat agtgtttttg
53701
       ttttttttag gttgttatgg agttgatgga gagagtgact ctattatgag ttcagcttct
53761
       gaaaactcca ctgaaccttg gttttgtgat gcctgtaaat gtggtgtttc tcctagctgt
53821
       qaactgtgtc ctaatcagga tggaattttc aaggagacag atgctggaag gttaatgtcc
       taattatgtt ggttcatatg tttgctttat aatgtgtctg cctttgactt ccctgttctt
53881
       ctqtttatqa ttacacactt tcatttqatt qcttctttqt atcttcttqq cataqaataa
53941
54001
       atgaccagtg ggatacagat ggagaagggt gagaggaaag accatttatt gagtacctgc
54061
       atttgccttt acatccataa tcttaattaa tcttaataat tgaccctatg atgaggcagg
       tggtaacgtt tctcatttta taggtgtata gtacccaggg ctcagattat ttaaataact
54121
54181
       tattcqttca agaccacaaa ctggtgaatg gtcaattttg aacctagatc tgtataactt
54241
       tatatcagga gatagaactt aatacagtga tttaaaaaga agtttagtat aaagaatttt
54301
       taagctgtga taaaagagtc actataaggt ataaaaaaac tctaaaggat gctctgggcc
54361
       tgagggagat tatccaagga atgacaaaat tggaatgatg acctcctacc ctaggttggg
54421
       qttcaqqctt tqttqqaqaa attataqtta aaccctactq qatqqaqaqa aqqccctctq
54481
       tgttgagagg gccatggaaa aatgatcttc atgttgggcc agggctgtga ggtcactgag
54541
       ggactgtgta tatagctggg gcagagcaca ggaggaagta ctccacccat acctgctgaa
54601
       aagcccctcc gttctacqaq acctcctqcc attqaqttta taqctccctc taccattqaq
54661
       cttagtgtta tgctcactct gagaagaaat gctgaagaaa ttctgtccat tattgcagag
54721
       taggtattga agcatgcgtg agaggcaatt aataagtggc acaaagacct gtgttctttt
54781
       tactacattc acactcatgt ttgttaacac atttgagcac ttgtcatcat aacggtgttg
       ccatcttcca tgttttttt ttttttacag gagactacca tctagggttg gtgactaaaa
54841
54901
       ttaagagtaa ttttcaacct tttgtatttc gtggagatca cgctctgcct cttcctcc
54961
       aatataagag ggggggtggg tacttaaatt tttattttgt cacataagga tgttttagta
55021
       ttttattaaa catgctttat attaaaaaca agattaacag caaagcaacc tatataaatt
55081
       atcaccatca tttcccatat tttaacataa aaactagggt atattatgtc ctaaaataaa
55141
       ggataggctt ttaaatttaa taaattttac tttagtaaag taaaacaaat tttctcttat
55201
       tittatcatt titgcctcaa tiggtggact gatccttgag aaatgttgcc atacaagatt
55261
       gctqqqataq cqtagaatct accattqaat cttqqaqaat cccatqtqtt gatqttcagq
55321
       acaaatgact aaagaatctt acctcttctt ccttattgtc tatccaaaaa taaaatatat
55381
       aacaaatgat ttgatgtatt gacatgaatc tgtggtctgt atcataggca taggcattac
55441
       tctaagttgg gcctgagagt ggcctagtat tagggagttt agtaagcatt aagtgtgcac
55501
       cttcaagttg gactgtctat gtttggattc tagtcttttt tttttaatag ctataatttt
       aggcaagtga tgtaaccttt ttatgcctca gtttccttag cagtgttgag aagactaaat
55561
55621
       gagatgatcc atgagaaaca actagcagtt tctgtaacat aataagtggt cagtaaatgt
55681
       ctccttactc ttactactgc cgttactgct gctactagtg ctttcttatt accattattg
55741
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55801
       tttqqtaact cttccaqtcc tgagaattga aatttttqgt gataaattgt ggtgaataag
55861
       taaqqcagtt ttggaaagac agaacttcct tttagggaag agaatttatt ttactgtttt
55921
       tcttgttgat aatttaaaag ttctgttagg acactgtcaa gtagtggtta cttcatgcta
55981
       tcataataga caaaacaact ggcaaagttg tttctgaatg aagaaaactg aggcctcttt
56041
       accatttagg tttactgagg gatttttttt tggatactgt ggacgttaca taagtagaca
       cctcctgtga tggtgcaatc tggcaaaaat tcttttatat actatttgaa cacttgtgct
56101
56161
       aatgtctaca cttacctgta ggctgtactg gaaattatag gccttcacaa tatttccaag
56221
       qacqtaatac taqtttqatt aaaggtataa aaagccaaga aaattcgaga agccttttag
56281
       tatatgagct tcaaatggaa aacagggaaa aagaaagaat attgtatata aagaataaaa
56341
       aaggttttga agttcaccat cacatgagat taattagact tttttccttc tattcttgat
56401
       gggagccaca agttctacat agaaaatgat gtgatttaat gtaagaaaac cagtacattc
56461
       ttgtcattaa atttttattt tatatcttat ggagagtaag acttataaac ctgactgtgg
56521
       qaaatttttt ggcatgctct ccttttttat tttttattta tagttttact atttgtgggt
56581
       acatagtaga tatgtatatt catggggtac atgagatgtt ttgatacagg catgcaatgt
       gaaataagca catcatggag aatggggtat ccatttctca aacacttgtc ttttgagtta
56641
56701
       caaacaatcc aqttaccctc tttaaqttat ttttaaqtqt acaatttaqt ttttcttgac
56761
       tgtagtcacc ctgttgtgct attaaacagt aggtcttagt ctttccactt tttcgactca
56821
       ttaaccatct cccacctccc cccaccattt caccctttcc ctgcactatc cttcccaacg
56881
       tctagtaacc atccttctcc tgtctgtgtc catgagttca gttgtttggt ttttagatcc
56941
       cacaaataag tgagaacatg tgatgtttgt cttgctgtgc ctggcttatt tcacctaaca
57001
       taatgatete tagtteeace caagttgttg caaatgactg geteteatte ttttttatgg
57061
       cttagtactc cattgtgtat tgtgtaccac aatttcttta tcggattcgt ctgttggtgg
57121
       aaacttaggt tgcttccaaa tcttagctat tgtaaacagt gctgcgacaa atataggagt
57181
       qcaqatatct ctttaatqta ctqatttcct ttctttcqqa tqtataccca acaqtqcaqt
57241
       tgctggatta tatggcagct caatttttag gaacctccaa agttttcttc atcatggttg
57301
       tactaatWta catttcatgc aacagtgtac aagggttccc ttttctccac attcttgcca
57361
       acatttqtta ttgcctgtct tttggatata agctatttta actggggtga gatgatattt
57421
       catgatagtt ttgatttgca tttctctgat gatcaaggat tttgagtccc ttttcatatg
```

### FIGURE 2-P

57481	cctattttaa	catatgagct	tctttttata	tatcttttt	tgagaaatgt	ctattcaaat
57541	-	tttttaatca		-		
57601		gttatttatc		_		_
57661	-	ctcttcagtt			-	
57721	2 2 2 2 2	cctgatatga		_		
57781		caagaaattt		-		
57841		tagtttgagg				
57901	-	agagatggcg	_	_		-
57961		gttgaagaaa	-	<del>-</del>		<del>-</del>
58021		cacttaggtg				
58081		gttttatgac				
58141		ggtagtatga				
58201		gtatacattt				
58261		ggattgcatt				
58321		ttccagtttg				
58381	_	tcagtgtttt				
58441		tttaatctta				
58501		ttcactgttg				
58561	-	tttactgaat		-		
	_	_		-		
58621		aacattatat	-	-	-	
58681		tttttatctt				_
58741		cagtggtgac				
58801	_	ttcccattca			_	-
58861		tatgtctttc	_			
58921		aatgcttttt	•			
58981		tgatatatca			•	_
59041		cctacttggt				
59101		tgaggatctt				
59161		tgcctttggc				
59221		ttccctcttc	_			
59281		gtgtttggta	_			
59341		cgggagactt		_	_	
59401		tttcttcatg	_			
59461		gattttctaa				
59521		ctgcaatatc				
59581	-	ctctttttc				
59641		acattttgtt	-	-		
59701	_	ctgatcttta				-
59761	-	agatatgtca				
59821		tataaacctc				
59881		tccattacta				
59941		ttctgaaatg				
60001		tgcaatagaa				
60061		cagacggggc				
60121		taacctctgc				
60181		tataggtgtg				
60241						cagtcctccc
60301		tccaaactgt				
60361		tggctttgtc				
60421	_	ctcctaggct			_	
60481		tgccacgaca				
60541		caggctggtc				
60601		gggattacag				
60661		ctagatttag	-	-	-	
60721		aatttttctg				
60781		ttaggctttt	-	-		
60841		ctgtaagcac				
60901		tagtagacac				
60961		tttgttttac				
61021		gattaatata				
61081		ctttattaaa				
61141		ctgactgttt				
61201		tctgtcataa				
61261	tttttttaa	attgtagatt	tgtcttaatt	acaaagttat	aaataatgtg	catctaaaca

### FIGURE 2-Q

```
61321
       gatgagcaag aaactattta cagctggtat taaaagggac catagttgtc tcggccatga
61381
       ttttcattga ctttgatagg tattttaatg aggactcaag ttggtatcct cacatgagtg
61441
       gttgggagaa tgatatactt gtatgccagt cacattgaaa tggcagttta aatctgtagt
61501
       acttgtgtac tacattttaa gaaggtcagt atgaagcaag cagccagctg ttaggtttat
       caRagataaa ctcctacaga gtatagcgac atttaataca tcagtggagc atgaaaaaac
61561
61621
       tgaacaaatt aaattgagaa agcagctgct tgttgaagaY gtgtatcttt atattgaact
61681
       ccataggatg tatttgggag gttggattaa aacattctat caagaaaatc tcaaaacctt
61741
       ggcttttttc cccaataaaa aagataattt tttaaaaaaga tttagaacta ttttcccag
61801
       tgcctctaga gaataatttt tggtcttagt cctctaaaac tcataatgca ccacaaaaac
61861
       cagaaccatg tagcatgcat agcctctgaa gttgtgataa agcagaattt gttgttaata
61921
       tattcacagg gttaatagag atttgctgct gtgaccctct ttcttacaaa agtgctaaga
61981
       tctactgttt aaatttcaaa gtcagtgatg ccacattttg ttttgttgta agcaagcaga
62041
       aagagtgcct aatatattaa aaaaggttca gagcagtttt taaaaaaatga aattagaaac
62101
       aactgcaatt tttttcagtg tactgaaact ctgagcattc tttgttttag tcttatagca
62161
       tcattcaaac tttaataaat atttatattt ggggcatata aattttagta tRtagattgt
62221
       atggtaaaca gataagatga ataaaaatgt gaattgctta ttctgtacct tttcccagca
62281
       gttttaatct ggaaaggaag ttaaaactgt atacaaaaat tgtaaaatat gtccttaaag
62341
       attattaccc cagcagettt tggaaaagag taataagaga aattttacct aattactgca
62401
       gagtaaattc acagttatta aattagtatc cttaattctc aaagggtttg aaataatgaa
62461
       cgtgactacc tttccttgca tatgaaaatg atgttttgtt tcatttgaat agtagtttta
62521
       tgcaaatatt taagaataga taagtgcaaa gtgcagtgag tgaattttaa gtgaaaggca
62581
       attatagttg ttagctctca gttttggcta agctgctgga aaagtaattt cagtcccctt
62641
       ttttgtaact aagtgttatt ctgtaggtgt ttcatatttt ttaatgatgt gcctgagatt
62701
       gcgagatttt aacatttgat tacagaattc tcttggtagt attttgagat ggcaagcgtt
62761
       ttatatgttt gttttgtgtg tgggaatttt attaaaagat ttgatagcaa aatcatatct
62821
       tctcttctta gatgggttca tattgtttgt gccctgtatg ttcctggagt agcctttgga
62881
       gatattgaca aattacgacc agtaacacta acggaaatga actattccaa atatggtgcc
62941
       aaggtgagac acaaagcatt tttgattgct tgaaagagaa aggttttact tgttagttta
63001
       cctggctttt tatttgtatt atgttgactg cagaaatgct tactaggaat cattctattt
63061
       agcactaaat catttattat tgatagtagt tttcctagaa agccaataat gcataaattc
63121
       ttctatacat tcttaattta gagtaacgta tgaggtaaaa tgataattgg tactactacc
       atttccctgg cagtgttcac aatgcctaat acatagacca aaaccttatt tacaattaga
63181
63241
       tggatcaaat ataagcctaa tttctgactt tacttttgaa gtggaatttg tcaaaattat
63301
       gaaaaagaat attagaagtg atctttgatg ctgttactgt aattgttttg gggcgtgccg
63361
       ttaacatgcc cttaatagat ggtgaactta attgatatat gttatgtgtg ttctgactgc
63421
       ttcaccaacc tggtgttccc ctatctttct ccctgacttg gttggggcct ctctgttcgc
63481
       tgagacacag tgaaattgaa atttggccaa ttagggctgg gtgctcacgc ctgttatccc
63541
       agcacttcgg gaggccaagg tgggcagatc acctgagatt aggagttcga gaccagcctg
63601
       gccaacatgg cgaaacctcg tctctactaa aaatacaaca aattagctgg gcgtggtggc
63661
       gcgtgcctgt aatcccagcc actcaggagg ctgaggcagg agaatcgctt gaacccagga
63721
       ggtggaggtt gcagtgagct gagattgcgc cacggcactc cagcctgggc gacagagtga
63781
       gactccatct caaaaaaaaa gaaaaagaaa tttggccaat taataattct acagtggcct
63841
       ctaagtgttc aagtgaaagg aagagtcata catctgtcac tttaaattaa aagctagaaa
63901
       tgattaagct tagtgaggaa ggcatgtcga aagcctaggt aggccaaaag ctgggcctct
63961
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64021
       tactccagca aacacatgaa tgataagaaa gtgaagctgc cttattgctg ataatggaga
64081
       aaattttaat agtagggata gatcatagca gccacaacat tcccttaagc caaaacctca
64141
       tccagagcat gaccctaact gttcaatatt gtgaaggctg agagaggtga ggaagctgca
64201
       gaagaaaggt tgaaaggtag cagaggttgg ttcatgaggt ttaaggaaag aagccatctc
64261
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64321
       tcagaagatt tagctaagac aaatgatgaa gatttgtaca ttcaacaaag attttcaatg
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       ctqqtqactt taaqttqaaq ccaqtqctcc tatactattq tqaaaatcct aqaqccctta
64501
64561
       agaattatgt taaatctact ctgcctgtgc tctgtaaatg gaacaacaaa gcctgtgcac
64621
       agcacatctg tgtaccgcat ggtttactgg atattttaag ccccttgttg agacttactg
64681
       ctcagaaaaa agattccttt caaaagatta ctgcttatcg acagtgcacc tggtggtcac
64741
       ccaagagctc tgatgaagta caaggagatt aatgtgtttt cctgcctgct gtcacaacag
64801
       ccattctgaa gcccatggat caaggagtca ttttgacttt aaagtctgat tatttaagaa
64861
       atacatttca taaqqctata qctqccatac ataqtqattc ctctgatgga tctgggcaaa
64921
       gtaaattgaa aaccttctag aaaggggtca cttttttaga tgtcattaag aatatttatg
64981
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65041
       ccttcatgga taactttgaa ggggttgaag aattcagtgg aggaagtcac tgcagatgtg
65101
       gcagaaataa caagataact agaattagaa gtgtagccaa aggtgactga actgctgcga
```

#### FIGURE 2-R

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65161
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65221
65281
       aaaagactta ggatattaca taaacttgat tgattaagca ggaagagggt ttgagaggat
65341
       tgactccaat tttgaaggaa gttctaccat gggtaaaatg ctgtcaaata gcatcacgtg
65401
       ccacaqaqaa atctttcata aaaggaagga tgaatctatg cagcaaactt cattgtttta
65461
       ttttaaqaac ttqccaqccq qqcacqqtqq ctcacacctq taatcccaqc actttqqqaq
65521
       gccgaggtgg gtggatcacg agatcaggag atcaagacca tcccgggtaa cacggtgaaa
65581
       ccccqtctct cctaaaaaaa tacaaaaaat tagccgggca tggtagcagg tgcctgtagt
65641
       ctcagctact tgggaggctg aggcaggaga atggcgtgaa cccgggaggc agagcttgca
65701
       gtgagccgag atcgtgccat tgccctccag cctaggtgac agagcgagac tccgtctcaa
65761
       aaaaaaagaa aaagaaaaag aaagaaattg ccaggctggg tgcggtggct cacgcctgta
65821
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65881
       gcctggccaa agtggcaaaa ccctgtatct actaaaaata caaaaattag ctgggcgtgg
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       taaagtattc ttaaattaat gtacttaaca ttttaaaaaat acataatgtt attatgcatt
66241
66301
       taatagacta cagatagtat aaacctaact tgaaaataca tggagaaact aaaaaattct
       cgtgatttgt tttattgtga tactttattg aagtggtctg gagctgaact tgggttatct
66361
66421
       ctgatgtatg cttgtaaatt taacagaggt tatttgagca ttaacagatg tatttattgg
66481
       gcagcactta gaactagaaa aggctcagag atgcccactt caatagtgtg agcagtgggc
66541
       ttctattggc tgaatgtgga accaaagtaa ggaaattact taattgacta cagctgtgtt
66601
       qtttttctqt atqqqtatqa tttaqtaqaa aqtqtccaqt tacqttatct qatqtctaqt
66661
       tggctgttgt ggttagttga agcttgtttt ttttttttt ttaaatttaa tttattacaa
66721
       qqaatttttc taaattaaat ttcaccttqt qtaaaqttcc atqtacaqaa acaqqtccaq
66781
       gctaatttcc tcttgcttat tttgctttaa gaaaacatca ctgggaaact gagttgaaaa
66841
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67441
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67561
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67621
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67681
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67741
       tctggtctct tgtttccttt tccaagcaat tttatattgt ttaagaatta gtatagcttg
67801
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67861
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67921
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67981
       tatagtcctt gacttatgat gggtttacat cctgataaat ccattgtaag tttaaaatat
68041
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68101
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68221
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68281
68341
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68401
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68461
       ataggtaatt acgttttttc atataaactc ttggctcgcc tatgattatt gtttgtattg
68521
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68581
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68641
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68701
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68761
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68821
       caagatatct tttgactcta tgtcctataa taagtgtaaa taataaaaga aattttaaca
68881
       tttattctta aagttcttgc caagatcact gttctaaaac tttaagagta aatgcctatg
68941
       agttttgtca gttttaaagc tagtcagacg ttcagaaaac ataattttta tagtgagatc
```

			FIC	ude a c	7	
			rig	URE 2-8	•	
69001	tgacagataa	aatgaaagat	aatccaagtt	gtcttaaagc	attaaaatgt	cggcatttca
69061	gccccatgaa	ttatagttaa	aaaaaaatag	catattttat	acgagaagct	gaaactgtat
69121		ttgctctatt				-
69181	-	ctttactgtt			_	
69241	-	aatcagttgt				_
69301		aactattttc		-		_
69361 69421	_	gtattagtgg caattttgag	-	-	-	-
69481		tgtaaaacag	_			-
69541		aagtgtatac	_			
69601	-	ttttcagttt		-		_
69661		gagtcctcag				
69721	_	agcttacata				
69781	gatggcttta	tggtaatagt	ctaagcctct	ccttgttatg	ttttttcttt	tattgggtaa
69841		ttgtgctgag				
69901	_	ctgatgaaga				-
69961		tataggaatt		, ,		_
70021 70081		cttcatttat actagatgaa				
70081		gtaaaggtag				
70201	_	ggcaatacag		_		
70261		atctatagga				
70321		gtgcttttgg				
70381		cagcatcata				
70441		agccatgttt				
70501		ctaaaggcat				
70561		gtggtctgtg		_		
70621	-	taggatgtga	-		-	
70681 70741	_	aggtgggagc actcagtgtg			_	
70801		ctggtttctt			-	
70861	_	aaaacccaga	-			
70921	-	tgtcttgtct				
70981	aatgtaatag	catttaaaat	taagaaacac	attttaaact	aaaatagatc	tatgtttgtg
71041	-	gccttctatt		_		
71101	•	caagttggat			_	
71161		gaaaaataga		-	-	
71221	-	tatgactttg	_	-		
71281 71341		atttctattc atgttatgac			-	_
71401	-	cttattttta	_		_	-
71461		ctttgggagg				
71521		acatagcagg				
71581		gcctgtagtc				
71641		gaggctgcat				
71701		tacctctaaa				
71761		tatgctgact				
71821	-	tccaagtaag		-	_	
71881 71941		attgctgtac gcacacgcct				
72001		gcctcaagag	-			
72061	2 2 2 2	atgtaaaaat			_	-
72121		aggtgggagg				
72181		tgaggtgggg			_	
72241		attaggttat				
72301		aagataccag				_
72361		aggttctcaa				-
72421		ctatgtcagt				
72481 72541	-	gaccaaatca			-	-
72601		tgttaggagt cagtttgcca				
72661		ttcatttttg				
72721		ctattactgc				
72781		aatttgcaga				

#### FIGURE 2-T

```
72841
       gaatctgatġ acagtcaggt aatggttaag gaagatggat cttacatact ggacataggt
72901
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72961
       aatgqtaqaa cccacctcat gtggtagtgg tgaaggttaa agagatagta tatacaaaag
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73081
       tgggagtagg atcttgaaag ctccatttct ccaagcaggt tgaagggata ttccatgtca
73141
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73201
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73261
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73321
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73381
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73441
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73501
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73561
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73621
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73681
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73741
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73801
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73861
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73921
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73981
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       gctgtactgt gacatctata gatatcacac tacagaattg cctcatatgc ttttttttta
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74101
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74341
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75181
75241
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75541
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75661
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75721
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75961
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       aatcttaagg aacatgtttc attttattat cttttaaaat ttgaatacat ttcttttata
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76441
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76501
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       agtggacaat tcagatacta gttctagtgt ggatggaagg agaaaacata agcaaccagc
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76621
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#### FIGURE 2-U

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76801
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76921
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78241
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79561
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#### FIGURE 2-V

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80941
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81481
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81541
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81661
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82081
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82681
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82741
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83881
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84121
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84181
       cactacctgg gtgataggga tcattcatat tccaaacctc agtatcatgc agtataccca
       84241
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84301
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#### FIGURE 2-W

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84541
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84661
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88141
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#### FIGURE 2-X

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#### FIGURE 2-Y

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       tttctttttg ctttctttgc actctaagtc atgtagtgac ttttcatctt ttgtagaagt
95341
       gccaaaggac ttgttgggac ctctctttcc attgttttta cacacacgca tgcatcatct
95401
       actetetttg aagttStgag atetttette etgaettaca aatteKggtt gtgttttata
95461
       tattttcttt tttgcaaaat aaatgcaata aataggcaaa atacttttta gcagctttga
95521
       ctgaaaacca tattgttttt caggatgcat tatttctttt agatcattat tttagaagga
95581
       gatttaaaca catctaatcg tttttccatc gcacttaaca atgtgagcca ctagccagtt
95641
       ctaagtggca gtctttattt gagagataat caaatatcct agagcctact tttattacat
95701
       ttatqtttta actaatttta cqcatataca aaqtacctat ttaataatgt ttaagcttaa
95761
       qtcttgagaa tctgaaaata tgaaatatgt ttcatataaa tattttttag atgttagttt
95821
       aggaaaaatg ttgaagcatt tggattcagt tctactgaag tgactaaagg ttactgtaca
```

#### FIGURE 2-Z

```
ttatgttcat atttatttta cttattctta tactaactgt ttgaattact acagttctgg
95881
95941
       gaaagaagag ttatttgtgg gggctttaca taccagagtt ttctattatc agactcaagg
96001
       tgacctctga ggtacgagtc agattataaa acctctatct gtcatagatt cttagaagaa
96061
       accordgeaa acagtttttq tagtgaacta gaactcactt tggctacttq gaagagatct
96121
       actetgtggg tgtccttage tcaagtaate ttattcagaa eeetgagaet eetgttttge
96181
       tttttgcctc ttggaaatcc atcactttta tttattccca ggagtatgaa ataaagataa
96241
       qaataqqtqq aqctttcaaq actttcctta ttttqtatat accattatct ctqaqaaqqt
96301
       ttttatagca gcacttactt gtcatgtaga atacatattt tattatatat cattagaccc
96361
       ataqttaKtt caqtttataq taqttaaqac aaattqqtta tqattttctt tttattctcc
96421
       catatatttt cataaccctg ttaacataag ctaaattaga taaaaagaaa ctctacagtc
96481
       aattgaccaa agggaaagca ctcacttttg gtgactgcca ttccattggt tgtttattgg
96541
       tagccaacag aaacagatga caccttgttc ataatttgtt ttttgtatat agcaattttc
96601
       tttgaatatt tcatgaactt taacttgttt tcaatgcagt ttcataattg aaagacaaat
96661
       atttttagga attatgtata tgtataattt tatatttttt agaaattata tttttattat
96721
       atattgctac atataatata tgctatacat ataattttat attcttagga attaaatata
96781
       tattatattt ttatatatta gaataaattt tatattgaag catttttgaa tagctgccag
96841
       aaagctactg gcatttattc cccagcataa atctaatgct atttagctta acagaggttt
96901
       tcaaagtttg acttaattgt cctaattaac attgattttg gaattttgcc catgaataag
96961
       catgttctat ttttacatat aagttgcaga gggaagcatt tcttatgatt caccatatgt
97021
       gacttacttt aattattaat ttgtataaaY attgatatgt caacaaaaac acaagtgtta
97081
       aatttagtga cctggtcaca agtgaatatg tgaagcctag tttactgata tcaaagatgt
97141
       taaggtactg actcttttag ttttaaattt agttcatttg ccaaatgaat catgcatttg
97201
       acttgattgc aaattaaaat aacctcagct ctaaagaatt aattaaaata cattacatgt
97261
       tttttagtcc aaatgataga aaagttagag aaatgtttaa ttatttgttt tagatgaata
       aactatttat ttacttattt ttatttttat ttttttgaga cRgagtcttg ctctqtcqcc
97321
97381
       caggetggag tgcagtggtg tgacettgge teactgcaac etcegeetee caggategag
97441
       cgattctcat gcctcagcct cctgggtagc tgggattaca ggtgtgcacc accacgtccg
97501
       gctgagtttt gtattttagt agagatgaga tttcgccatg ttggccaggc tggtttcaaa
97561
       ctcgttacct caggtgatct acccgcctcg gcctcccaaa gtactaagat cacaggcctg
       agccactqtK cccqqcctqa ataaactatt taaaaqttqc ctqctagata agataatttt
97621
97681
       acaccttttc agtttaaata cattgtctct aataccatgc caatctcttc tatggatttt
97741
       ttaatcacct cttttcaagt aagttgatca cggacagatt acgagcaagg tgatttaagc
97801
       agctcaggtt gtaattgttc cctagctaaa tcaagttctt aaaaaaaaaga aaaacaaaaa
97861
       attggaatgt gtcaagattt ggaatgagtt ttaaactttc atttactttt aataggttag
97921
       ctaattactg tcaaaattaa tcagtttgga attgcaccct tgcttgatta atcatgtgga
97981
       atttccagRt aacgtatctg tgttacattc taaagcacat tcttgaaaag taaaattctt
98041
       ccttcttcca catattattt tcatcctaca gttttattgt tgctaaagta gtttcagcct
98101
       caaaatRtat cagaaaagga ccacccagtt atatatactt ctattcatct gagatgggac
       aagctctttg gtaactgaaa tttgtcagat aggcccaact tattttcgtt tttcttgctt
98161
98221
       ttttgtacca tttctccctc ttttaaattc tacttatgtt ttgggattca ttcaagtaca
98281
       ctactttcaa gataacttgt
```

#### FIGURE 3-A

#### >14:71227101-71317000

```
aaacccagag atgttaaaag acacattaac cagttgcaat gtagggttcc catttggatc
61
       ctgatttaaa ctacaggggg aaaaatgaat gttggccaaa tatttgatga tattaaagtc
121
       ttattgctaa ttatttgagc tctgatagtg attgtgagtK tgtttgtttg tttaagttct
181
       ttaccattta gagatacata acaaaatatt tacagatgaa atcacgtgct tttgtggatt
241
       tgcttcaaaa taaaatgagg tcagggagaa aagtaaggag tgcgtataga tgaaacacga
301
       ttgaccatga gttgaacatt gttgaagcag ggctacatgg ggatgtgttt tactattgtc
361
       ttcagtttta tatgaaggtg aaatttttcc aaatgaaaca tttttaaaaa catatccagg
421
       cagaqccaga aaaatcacat tcctgtagct gtctccctaa taaaaaggtc tttattctgt
481
       tctttgcagc ctagaagact agtgtcactg tagctgtagt aataacagta atatcaataa
541
       taataggcca ggtgcagtgg ctcacgcctg taatcccagc actatgggag gcccaggcag
601
       qcaqatcatq aqatcaqqaq ttcqaqacaq cctqaccaac atqqtqaaac cccqtctcta
661
       ctaaaaatac aaaaactagc tgggtgtggt ggcgcacgcc tgtaatccca gcgactcagg
721
       aggetgaage atgagaatea ettgaaceeg ggaggeggtg agtegagate geaceaetge
781
       actccaqcct gggcaacaca gcaaqagtcc atctcaaaaa aaaaaaaata acaataataa
841
       taataatacc cagcattttg gaagcacata cttgctatgt gctaaactca tttaagagtt
901
       tttataaatt ttctcattta attcagacga aatcttatgt ggtaagtact attattattc
961
       acattttaca gatgaggaac ctgagggaca gaagtttggt gacaaaggta agcctcacac
1021
       ccaqatctaa tqqcaqattt ccqqcttqta accaacaccc aaaggtaaaa gatgaagatt
1081
       gctgtcatgt cctcagtctt gccttctttg ggataaacac ctttagctct ttcactcccc
1141
       accecacec accettgeca catggettea atgececaca ceateettgt cacatteett
       gaaacacctg ccaggagcca taaaagtagc tgagcttctt taaggtatct cagaggccca
1201
1261
       tgtgcagctt gcccaccc gatcctaccc aggctgcctg gtttcccaga caagctgcgg
1321
       tectectee tecaggetgg gageetgeac atgegeatgt eccaggagtg gegeagetea
       cctgggcctc ggtgcctctt ctccatccag atgtagcagt tgttctgggc caccccagtc
1381
1441
       tgtgagtcca ggaagggaag acgcacgctg cgctctgcac acagccgtga gttgtaactc
1501
       eggeagtget caatggette ettgtagaae tggteeeega geetgeeaga gteagagagt
1561
       gaaggggtga ggccagggaa gactgaaaca cacccagagg gaaacacacc cagagggaaa
1621
       cacacctccc tggaaagact gaagacctcc cagttatgaa gaccaaggca atgagcacca
1681
       agageettge caatgageag aatgeaacte aatgteaggt ettgactaga ttttatttte
1741
       tatcccaaat ccaccaggca acttagaaac tcctttaaca aagagcatgg gcttccaagg
1801
       atgaatcacc agtaagagag agctgtccat gttctaggaa gcatgaggtc ccactccaga
1861
       agggaagtag ctctggaaca accttctgca tggaatctag aggacatcac acttctagaa
       colocteact cataltaget acattltatt ctcagaggtc accagcaaag gcactctagg
1921
1981
       tgaacccaaa tcaccagcaa agatactcag ttttccatta caacagaaga gaaacactcc
2041
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2101
       agggggtgta gaggaacagg caccaatctt ttaaaaccat attacttaaa gaaaaataac
2161
       tttccgatag aaaacaaaca gaattcaaca attttaaatt caaaataatt caactcatgg
       agtttaaaaa acaaatagaa agacctttct ggtttgctag actgagaatc tgattaagca
2221
2281
       cagtatattt tacgttcctg actctttggt atttttggac acgtggtgat gctactaatt
2341
       ttaaggtagt gtccttttca aagaccaaaa atggagcatt gatataattg atcaaatgca
2401
       aagcactaaa ataatcaatg agatcaaata cctaccaaat aaaacatagg cacaggttaa
2461
       taaatgcctc aaagaaatac aaatgtaata acataactta tgccaggtaa attcaagcct
2521
       cttactgggg tcgggggca gtggacgcaa aggagtggag tgtgggaaga agaagtagga
2581
       agggaaggag ccacagagtt cacaggggca aaagggagaa tcaagtgttt attctgaagc
2641
       aacattatga tatctttttg ttttggttct atgtagattt cagaaagcca aaatgagagg
2701
       ggaagtctct aaaaatatca tttcttaacc aaagtattta gaggaataaa aaaagcaaaa
2761
      gcccaggctg gagtgcaacg gtgcgatctc agctcactgc aacctccacc tcctgggttc
2821
2881
       aaacqattct cctqcctcaq cctcctqaqt agctqqqatt ataggtacct gccaccatgc
2941
       ccggctaatt ttttatattt ttagtagaga cagagtttca ctatattggt caggctggtc
3001
       tcaaactcct gacctcaggc gatccacccg cctcagcctc ccaaagtgct gggattacag
3061
       gcgtgagcca ccatgcctgg cctcaatttc ttaattgtgg taaaatacac ataacataaa
3121
       atttcccatc ttaagtgtac agtttaagtg tacagttcag tggcattaag cacatgcata
3181
       ctgttgtacg accaccacta ctatccattc ccagaactct tttcatcttg caaaactgaa
3241
       acactatacc cattaaacaa taactccccg ttccgcctct gcccccatct ccagcaacta
       ccaatctgct ttctatctct atgattctga ctactccaag tacttcataa aagtggagtc
3301
3361
       atacagtatt tgtctttttg tgactggctt atttgactta gcataatatc ctcagggtta
3421
       acctatatta tagcatatgt cagaatttcc ttccttttta agtcagaata atattttaag
3481
       tcagaataat atttttaag tcagaataat attccattgt atgcatatac cacattttgc
       ttatccattc atctgtcagt ggatatctgg gttgcttcca cattttagct attctgaata atgctgctat gaacatgagt atacaaatat cttttcaaaa ccctgctttc aggctgggcg
3541
3601
3661
       cagtggctca tgcctgtaat cccagcactt tgggaggctg aggtgggtgg atcgcctgag
```

### FIGURE 3-B

3721		cgagaccagc				
3781	aaaattagct	gggcctggtg	gcagacgcct	gtaatcccag	ctactcaaga	gtcgcttgaa
3841	ctcagaaggt	tgtggtgagt	tgggattgtg	ccactgcact	ccagcctggg	cgacagggtg
3901	agactctgtc	taaaaaaaaa	aaaaaaaaa	aaaaaaaacc	tgctttcagt	tcttttaggt
3961		gagtagaatt				
4021	_	tgtttttcat			-	
4081		tactccacat				
4141	222	tctttttaaa				-
4201	_	tgggaaaaca			-	-
4261		atccaaaaaa			_	
4321	-	cttcacattc		-		
4381	-	aactgtaatc	-			
4441	ggagatgaaa	gcccattaca	atgctataaa	actgaatggc	acataagctg	atgtaatcaa
4501	agctggtaac	aaggatcatg	agattgatca	aaaataaaga	accactttt	acaaagtgtt
4561	tgtgtcacac	cagcttaaat	gcttccttct	gctatggcga	tgtagctcag	tggaacagaa
4621	ctttcacagg	cagcttggcc	cagacaagat	gacccaggct	gttcagggta	tcctggatgc
4681		acccatgaaa				
4741	-	gagaggtgtc				
4801	-	aaaaaaaaag			-	-
4861		atcaggcccc	-			
4921				-		
		gatcactttc			_	
4981		caaattggac	-			
5041		aggaacaaga	-	-		
5101		acaccaactg	-			
5161		ttaaatactt		_	-	-
5221		atgtatattt				
5281	aacagaaaag	actttctgtg	gactggaaca	actgtattaa	agatcgaagc	tgcaaaaaca
5341	tgacattcaa	cagcccctct	accatcatct	ccagggaagt	ccttttaaac	agaccaggtg
5401	ttggcagaga	ttcggaacca	aaatttaaag	cctttttcaa	gatataagag	gagaaaagag
5461	atttcatcct	ccctgataaa	ttcaagaagc	acttctccaa	aagttaatta	gccaaaatcg
5521		tgctatgctc				
5581		aaacagcaga		-	-	
5641	-	atcccacaat				-
5701		agcagggaaa				
5761		ttggatcaca				
5821		atccccaagg				
5881		gatgttctta				
5941		caagggaaac				
6001		gctggctgcc				
6061	gatcccatct	gaattgagaa	gccagcccag	ctctgagagc	tgagtgtttc	tacatgagat
6121	ttccagcaac	cctccttgag	cctatctgtg	gagatggact	ccagggggcc	aaagaagact
6181	cagaatggga	aagatgagac	ttctccaaag	tgactgccaa	ccaggctcca	aatgtgattt
6241	ttcagagccc	atcaatcaca	acccctctaa	gaccctctgc	tcctcttcct	ccaacctcct
6301	gctctcaaga	ccacacctgc	ttgctccgat	ttctcagatc	actctcaggt	ccagccagac
6361		ctccctttca				
6421	cctgccatac	cagaaatgtg	agtccaatag	caagtttctc	atcttctgcc	agaagcctgc
6481		tcaagtctca				
6541		cctctcccta				
6601		tatttcattt				
		ctttgctgtg				
6661						
6721		agcagagctg				
6781		aggcgcctct				
6841		ccgccagagc				
6901		gctatttgca	-			
6961	·tctcccattt	agtcttttag	aataactggc	acacaggggg	caatatctgg	caaggtgcgg
7021	gaaagttttt	attttccttg	aagtggtcct	gttcctaatg	catctcttga	aagaagacca
7081	agtttagtgt	ttgttacaga	ctgaattgtg	tcgttcctcc	tcacagaaaa	aatccacatg
7141		aaccctcaat				
7201	atttgatatt	tacccctgcc	caaatctcat	gttgaattgt	aatccccaac	tctagaaata
7261		ggaggtgttt				
7321		agtgagttct				
7321		ctctcttqct				
7441		ttgtaagttt	-		_	-
7501						
, 201	gerreetgta	cagcctgcag	aacyatgagC	caactadacc	cyclicitat	uauttaccad

#### FIGURE 3-C

```
7561
       atctcaggta tttctttata gcaatacaag aatggcctaa tccaggaggt aatcaggtca
7621
       ggaggatgga gccctcatga tgggattagg gcccatataa ggcagagaca tgagcaagct
7681
       ctctcactct ctcaatctct gccatgagag gacacaaaaa ggcagctgta tgtgagctat
       aaggaggact cttacctgga atctgaccct gctagcaccc tcatcttgaa cttcccagcc
7741
7801
       tccagaactg tgacagacaa ttatttaagc caggggtccc aaacccctgg gccacagagc
7861
       agtaccagtc catgcctgtt aggaactggg tggcacagca ggaggtgagc tgtggggtac
7921
       aagtgagcat tgctgcctga gctctgcctc ctgtcagatc aatggcagca ctagagtctc
       atagaagcgc aaaccctact gtgaactgca catatgaggg atctaggttg cccactcctt
7981
8041
       atgagaatct aatgcttgat gatctgtcac tgtctcccat caaccccaga tgagactgtc
8101
       tagttqcagg aaaacaagct cagagctccc actgattcta cattatagtg agttgtaaaa
8161
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8221
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8281
       ccatqaaacc agtccctggt gccagaaagg ttggggactt ccggtttaag ctacccagtc
8341
       tatgccattt taatacagca gctggacatg actgaggaag tgtttctgga tgtttcccaa
8401
       aaaaqqqcta aqqaqqacaq qtqaqaqaqa ttccaatccc ctttccttcc acattttttc
8461
       ttcttctaac aaagacaaca ataataacac tataatatca atttcaactc aattcaatgt
       ttagtatttg tcttctctac tagactataa actccatgag ggcagaggcc acatctgcag
8521
8581
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       caatatgaag gccacccct ggagtggtgg agcccagcac tcctgcatac ctgcctggcc
8641
8701
       ttcttgctga tttacccgca gtgttcagca cagagcctgg cacataacag gtgcccagta
8761
       agtctccatt gaaaagcatt tgacaactca cattccactc acctagggca ggcatttaaa
8821
       ttacagcagg aaggctaatg tggcatgctt gtgcacagtc tgcagagtct gtgactggca
8881
       atttaaactg gatggctgtc cacttgcagc ttcagaaaaa cattgagaga atgtctgcat
8941
       tcactctcct qtaqtcctca tcacccagca cctqqqacat tgcaqcactq qgtgqcctaa
9001
       ctgcaagcgc tatagcccta ctcttaccca tcctgacaaa aggaattctc cctgaaactc
9061
       agtqtttaqt ctttcaaact cctcaqtqta qaacccaaqa tqqctcccaa tqqtqcccaq
9121
       gttcctctgc tgggctgggg atgcacccgg aaaaactatg tattggggta aagtggaaaa
9181
       tcaagacttg gaattggtca tgtctgagtc cagctccacc tcttaatagc tacacaaccc
9241
       tcagcaagtt acttaccctc cctgggccta aattctacta ctcacaatat gggtaatata
       atctctactt cagacctgag aaaatttaat aagctagaac ctctggcaca cagacataaa
9301
9361
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9421
       tgtggcatga ccctctgcct gagcaggctg atacccacca tgtgatgcaa cactcactat
9481
       tgcggtgtcc ttgaggctgt cggggaccca ctcaaacctc tgtcccagga cagaaggcct
9541
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9601
       ccccagcaat ccacccaagg actgccctaa gcacagagac cacatctggc ttgtttactg
9661
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9721
       qaatqaqtqa atqaatqaat cctcctctga ccccctgca tatatqaaac agacagccct
9781
       acccctgaat ctcaacaaaa cactttactt atatccttcc tcccacctgg aatttttgta
       ttctgtcctt gtcctggctg atcttagcct agtcaagagc tggctgaaaa cttgcttctt
9841
9901
       ccaqqaaqqt tcacaqqtta tctctaccaq taqqqtttqc tctctqqctt ctctqaqcta
       cettatetgt ettactttat ttttgatggt etttgecace tteettatet etgeteaett
9961
10021
       aattagattg gaagtatctt aaagacagga actgagagct atgtgcttgc atgctaccca
10081
       accatgcaca gtactgggaa tgtagaagca tgtgatagat acattgcttg actgaactat
10141
       catgtcatcc tcagcaaact aatgaaagct tcacagttga gaggtgcttg gaacgttcta
       actiteteca tgggaacatg aggtgageet gaagttatet ggetaettet ecagageeca
10201
10261
       ggattaggca totgaaaata gatatootoo aagttoaaat ootattgagt tttttoocat
10321
       atccttaaaa aaaggtcact tcagctcctg agattttcat ttctccatgt gcaaattcat
10381
       gctaccctgc aaggtgccac agaactgaca ttctccttct ctgaacttta caagaagctc
10441
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10501
       tgggtagaaa tgcccttctt gtgcttagtg agaatgccat caccacatgc tccaaaagaa
10561
       tgctctcaaa ctcaggattg tgaaagaatc gctaaggggt gggaagctgt gcaattctga
10621
       ttctagaggc ttgggatgtg atccagacat cagctccca gtgatcctga gaaatWtgag
10681
       actagctgat ctaaagatag ctccccaacc tctaaaacaa gggcatgaat gagaggggac
10741
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10801
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10861
       attaccetgg cagcactaac etgcagcaga ctaateceac aaaagteete ateeetaaca
10921
       aaattgccaa aagccctggt caaggcaaat gtatgaagat ctgacatcct tagtcattct
       gtgggtggct ctgaccttca aaacatctca ggaagggcac attggggaca aaggtatccc
10981
11041
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11101
       tggctcagtc tgatgttcag gcccagtaga cccaataaat cccttttcca gcatctaccc
11161
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11221
       tgaacctggc catgatttct gagccgccac tgggtgttct gatgacatac acatctcgag
11281
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## FIGURE 3-D

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# FIGURE 3-E

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15481	-					
			catcaactaa			
15541			agaatcccag			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
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15781		-	actcaggagg			
		-				
15841			gagattgtgc	-		
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16381	tggtacaacc	taataaaaac	ccataaatac	agttaataat	aaggaaaaca	agcactagct
16441	caccctacct	atttaataat	tattgttaac	tacagcaagc	aaaactcata	gctgaaaatt
16501			gcctcccttg			
16561			catcctagag			
16621			gctgaagact			
16681	tcagagagag	ttgattttct	ctgtcaaagg	cgatggcgcc	aaaaccctcc	tgtgcccctc
16741	actccagata	gaaccctcag	gaacagccag	gcatggaaga	gactgtcttt	atggcttcct
16801	ctccctactq	ggcctccatg	ccctgcttac	acccctttcc	tccccagaaa	gtgatcagga
16861			gcccagccca			
16921		-	cccctgttag			
16981			gtcactttgg			
17041		-	tggagagatc	_	-	
17101			tggggcaggc			
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17221	actttgagaa	ataggacctg	gctttcatgg	aatagtccag	ttcgcatcaa	ggtcccactg
17281	taatgattat	tacacttttc	cctctcaaaa	acacccttac	ttggctgata	aatgataaag
17341	_		ttgtggtggg			
17401			ggcttctaag			
		-				
17461			actgagctgc			
17521	tggcccggct	tctccatttg	ccatgcacac	agcctttgcc	tcttctttta	tttgtcaaat
17581	atttagagaa	tattcgccaa	agtgtgagct	ccccaggagg	cccacaggtg	ctggagagaa
17641	gagagggctt	tggagagtac	tgtaaggtga	aagaaaccta	ccaacaggtg	cctaactgcc
17701	taaccatact	aagcgcctga	gccctgggac	agggtatgat	cccagccctt	cacagtgcct
17761			tggtaagtgt		-	
17821			ggaaaactcc			
17881			atgcaggagg			
17941	aagagcagga	ggtgagcact	gagaaagatc	cagaagaact	catgcaagca	gaggctgtgg
18001	tctgtgggga	ggagggccgg	gcagggcagc	ggaccagagg	aagaagcaac	aaagaaggaa
18061	ggggaagagg	aggaggagga	ggagggggc	cgcagagtca	ctgtgggtgg	agggagagca
18121	ccaccaacac	atocccaca	gccatcaata	tctcttcgga	ggacagatta	tctggggaat
18181			cttgcagagg			
18241			tctagtcaat			
18301	cctccccacc	recetaacte				CTTTGCCTCT
18361						
18421		gggaggttga	tggtggaagg	gtcacaacaa	cttttaacag	atgtaaaggc
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### FIGURE 3-F

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19261	ctccatcttc	agageteaag	caattcacct	acttagctac	cccagtaget	aggactacag
19321	gcatgtgcca	ccattcccag	ctaattttt	tttcttttt	taagagagat	cgtgtctcac
19381	tttattaccc	aggetggtet	caaactcctg	gactcaagtg	atccacctgc	ctcagcttcc
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19441	caaagtgetg	cegggartac	aggcatgagc	ergggrgeae	cigggeiggi	geteeteete
19501	cttaggactc	cactcactgc	tccctcctca	gggggcctcc	cccaaactcc	ttagctctgg
19561	cactcattct	ttttccatca	ctctggcacg	atoccaacta	tcaaaaatta	ttttataggc
				_		
19621			ctgtaatccc			
19681	gcttgagccc	aggagttcaa	gaccagcctg	ggcaacatag	tgagacctct	tccctactta
19741	aaattaatta	attagggagg	cacaatggct	catacetata	atoctagoac	tttaaaaaaa
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19801	cgagatggga	ggactgcttg	agaccaggaa	ctcgagacca	gcctggtcaa	caaagcgaga
19861	ccccatctct	taaaaaataa	taataaataa	aaaataatta	attaatqtat	atgtttattt
19921			gatataaaag		-	-
19981			cctaaagctg			
20041	tatgagttgg	atgaatgaat	tgtctgatgt	ccccactgag	cattccataa	tacatgatgg
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20221	gtagagaata	ttgtctttat	cattctcatg	ttacagatga	ggaaactgag	actcagaggt
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20401	aacatgatto	tetttacccc	tgaacctcta	aaatgtcccc	agccttactt	ctccccctc
	_		-	-	-	
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20521	cagattctct	ctctqccatt	cttttccctg	ctaggtgctg	cggaagtctg	tcctgtatgg
20581	-	_	ctctgctcct			
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20701	ctacccacta	aaggtcacag	ctcctgtggg	ccaqccctct	tcatacagct	acctctgcaa
20761	,	7.7	ccccgaccta	_	-	_
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21241	cctcagatga	tatectaata	cctcaaacaa	agccgccatc	acagetteaa	aatcacaata
21301			atgtggcagg			
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			ttttttagga			
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22321			tcacccctcc			
		-				_
22381			aggccacttc			
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22501	caggggaatg	gotoccacaa	cattttatag	actgcaagga	aaatatccag	aactgagacc
22561			aaaaaaaaa			
22621	tcttaaaatc	tctgcacaaa	tagaatttga	atgctctcac	tccaatcaaa	atcattctcc
22681	atccctccct	ttaaacacto	aaagttcaat	tccccctaaa	gacaggattg	caaacatgat
22741			agaaactcag			
22801			aatgaagtaa			
22861	accaaaaqtq	tcacaccaca	gccattggcc	atttaacaaq	gcagcattqc	cccatqtqqa

### FIGURE 3-G

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23041
23101
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23281
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23641
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23701
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## FIGURE 3-H

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26941		accagctagc				-
27001		ttgctatttg				
27061		aggagtcaat				
27121	ctggcatgta	atagttacac	agtaaacgct	tcatgaataa	agtattgaac	tgatatatca
27181	atacagctgt	gaataaataa	atgtcatatg	ctggaaaact	gaaatcatgt	aagatcgcat
27241	aattctattg	agatacttca	gcttaaagaa	tatttttaaa	tagaattaac	toctacctaa
27301	-	cattttcttt	-			_
27361				-		
		aaagtttcac	-			_
27421		gagatccgag	-			-
27481	attctcttaa	ttaccatttc	tacgtctata	aaatagatat	taaaaaatta	cccttccctg
27541	tcaacctcac	agggttgttg	tagcaaataa	gacagcatgg	gaaggctctg	agcacttttt
27601	accgtcaatg	attctacttc	cagccaggct	cagtggctct	tgcctgtaat	cccagcactt
27661	tgggagtctg	aggtgggtgg	atcacctgag	gtcgggagtt	caagaccagc	ctggctaaaa
27721		ctgtctccac				
27781		tactcaggag				
27841	-	caggatcgca				
						-
27901		aaaaaaaaa		-		
27961	_	tggtttctag	-			
28021	tttgctgtct	tccttttaat	attctgtatc	ccagtagcca	tattttcaac	atacatacat
28081	acatacatgt	atgaaaccaa	gataggaaat	ggttaaaatt	atccttgata	gtggagaaaa
28141	ctattgctcM	atccaaagag	agctggtatt	tctggcactg	aggattacat	gtgaccaagg
28201		tacctgcaag				
28261	-	ggctgcagca	_			
28321	-	acttctgccc	,,,,			
28381		tcagttcctg				
28441		ggcactgcta				
28501		tggaagttca				
28561		aaacctttgg				
28621	caagcatctc	aggagtgtgc	aggaggcagc	agaaggtagc	ctgtgtcctg	aggcagtgca
28681	ttctccccat	cccatgaatg	atggggctgg	acagaagaca	tcagggacag	caactcaaac
28741	cactgggcag	gtggggctga	atggatgggc	aacactggcc	gtgctcaggg	ctctgggtct
28801		tgcaattgta				
28861		tctgcctgcc				
28921		tccctcacta				
28981		ttgtgactag				
29041				_		
		cacctataat	~			
29101		caagaccagc			-	
29161		gatgcacacc		-		
29221		gtgagccacg	-	-		
29281	catatatgta	tatatatata	tatgagaaag	agacccacat	cccttagtga	tccgttcaag
29341	agtgatcagt	tcaagggtga	aaatgtggtc	tgaggcaggc	aaattagagt	caatcctgga
29401	acttctgggg	gaaagaggca	ctttcttct	cttagtatgg	aaaggcagat	aacaatatat
29461	acctgaagca	gctgggagcc	acccatcaag	caggcctgtt	tacaaaggat	gccaatgtaa
29521		agtttagaga	_			
29581		agtcacgagt				
29641		tgtgtgctta				
29701		tgatgcacat				
29761		aggggcccca			-	
29821		gttcactgtg				
29881	gccagggaat	gctacagatg	gcagctcacc	acggccccca	ccactcctta	ttgtctttgt
29941	caagcccatt	tcctcattta	ctttacctgc	ctggtccctt	taaatacata	agtttaccat
30001	cccttattag	atggataaat	agataaatgg	atggatggat	ggatggatgg	atggatggat
30061		acggacacat				
30121		atgcttggat				
30121		acagatggat				
30241		atgaatgcat				
30301		atggatgaac				
30361		atggatagat				
30421		atgggtggat				
30481		ttgcaagttg			-	-
30541	aacggcagcc	cactgcagtc	agggggccat	ctgacaatat	aggaaaggag	ataactatag

### FIGURE 3-I

30601	gcttacttct	gtatggtttt	agatatetaa	aataacggga	gatgactctc	tagatagcac
30661	-				ttaacaccac	
30721					gctgtgaaaa	
30781					gggcaggcag	
		=	=			_
30841					ctggacatgg	
30901		_			aaacaaggat	
30961					gagaaaaaaa	
31021					tccctcagcc	
31081		-			acagaaccac	
31141					tagaaaactg	
31201	atgcccctat	gaatcacttt	cctccttttg	ttgtctttgt	gaagtcatca	caaagttctg
31261	agtggaagaa	ttcttccagg	gactgccaag	gagtgacact	gtagccaggt	gggttcagct
31321	ctcactttgc	tcaggatatg	ggtgtccagt	ggcgacagat	caggaaaata	gccccatact
31381	aaatggtgcc	tggacaaggc	ccatacacac	ttggatatgc	tgtcctgaac	acaaggcaca
31441	agacacaaca	cgggaggacc	tttcatctca	tgtctcttac	agccagggac	tgaaggtgta
31501	ggacagtagg	agaaaataga	gtttcacata	aaacacccca	aggacatcaa	agaaggctag
31561	ctgccaagag	gtaggaagaa	ctagattctt	agggacttat	ccttggggat	tgataccacc
31621	cctgccaggc	atccaccttt	ggggtgactc	agagccaaga	aaacaaaggc	atgggataag
31681	ccatggaaaa	caaattcctg	ctgagtagca	aagagagtgg	caccaacaag	tggcaccatg
31741	tgagtgacaa	gagcaagcaa	atgctcacac	agggacagct	gggtgtgcag	ggccatcaca
31801	gctcccccta	ccccaccac	ctgaacacta	cgagacaaat	gggactcctg	gtttctgccc
31861	tcaacatgct	tatatttgag	agaggccaca	ggaccagcga	gtgcagagtc	atggcgaact
31921	gtacacaacc	tggagtcagg	agacccatgt	tctcaccctg	ttctgttgcc	tcgggggccc
31981					tctgtcaaga	
32041				,	tggctaatct	
32101	-			_	tcaaagctca	
32161				_	tgtgagcaca	_
32221				-	gttcctgagt	
32281	_	-		_	gaatttggat	
32341					aagtggatgg	
32401			-	-	cctcacggtg	
32461					tgtctcgatg	
32521					cttcaatgac	
32581		-	_	-	gcctacctct	_
32641				-	aaaatacagg	
32701					taacatgtgc	
32761					ctcctctctt	
32821					cttcaaatga	
32881	-				aaggccaata	
32941	-				agctgcttat	
33001	-			-	gagtctgggg	
33061	-		_		ctcactacaa	
33121	-	-			gttctgattt	
33181				-	ggtcacatgg	_
33241	-			_		-
33301					ggaageteea	
33361					atctagtcca	
33421					gcgtgaacac	
33481					ttgtaacgca	
		_			gctaggcctg	
33541					cacaggcaaa	
33601		_			atctatggtt	
33661				,,,,,,	agacgccaag	_
33721					ggatgagtgg	
33781			-		ctttccagga	
33841					aagattcccc	_
33901		-	_		gtgacagtgc	
33961	-		-		taggagaagc	
34021				-	caccaggagc	
34081					gactgaaagc	
34141					tttcacatga	-
34201					aggggctgag	
34261		-			agtagaggag	
34321					caaaggtagt	
34381	tcaactgagt	gaaatcattt	cattaataga	gattccttct	cactactcct	gtgaaactac

#### FIGURE 3-J

```
34441
       tttccaggga cgttggtata aaataggctg agtcctggga ggtgtcatgg aagacagaga
34501
       caagaaatca gaatatctga attcttatat cacagccact aactagctgt ttccttgatt
34561
       tattcaagag gtatgtgttc cctatctgcc acatgctagg catcaagcta gcaacagaag
34621
       qaaaaaacaa aqcaqtaqtc actttcctct cggaqcttca qcttcctact qtqtaaaacq
34681
       34741
       ctaaatacaa ggtgcagccc cagcctccca caggacctgc ctatacaggc catgactgaa
34801
       gaagggggaa acctgcagct tctaaaactg cacagaaggc tgggcacagt ggctcacacc
34861
       tgtaatccca gcactttggg agggcgaggt gggcagatca cctgaggtcg ggagtttgag
34921
       accagectga ccaacatgga gaaaccetgt etetactaaa aatacaaaat tageegggea
34981
       tggtggcagg taactgtaat cccagctact caggaggctg aggtaggaga atcacttgaa
35041
       cccaggaagc agaggttgcg gtgatctgag atcacgccat tgcactccag cctgggcaac
35101
       aagagtgaaa ctctacctcc aaaaaaaaaa aaactgcatg gaagcccaaa cccccagggc
35161
       aaatggaaca gtcacagcat gccatgcacg cacagggtca gagcaagagt atggccaggc
35221
       gcggtggctc acacctgtaa ttccagcact ttgggaggcc gaggtgggca gatcacttca
35281
       ggtcaggagt tcaagaccag cctggccaac aaggtgaaat cccgtctcta ctaaaaatac
35341
       aaaaattagt tggacattgt aatgggcgcc tgtaatctca gctacttggg aggcctgggt
35401
       attagaatcg cttgaacctg ggaggcggag gttgcagtga gttgagattg tgccactgca
35461
       ctctacctgg gtgacagagc aagactctgt ctcaaaaata aataaataaa ataacaaagg
35521
       tgtgaaaagt aggatgggtg tttcctagca catctctagt ttctgagggc tctctctaat
35581
       ggggaccYtc ctcttgaatt gtggtcccat gggttccaYc tcttctggga tccagtcagg
35641
       gettetteet teatteteag geacetteag cettgaaact cettggeete ettteeette
35701
       accttcctgg tgaaacataa cagagggtct tcgagacaat tcctttaaat catcaaaggg
35761
       cctatctagc aatgtctaac tccattcctt aacgtttact gaaaagctcc tcaaatacat
35821
       gatectecce tetaccegtt ecceteaget ettagYeate ettecteaga tgetaetttt
35881
       tcatagggac taatttcttc cttcttgcca aatccagtgg ccacccgtgg gtggtcctgc
35941
       tgctcaacca acgtatgaca gtattagcca tgcgctcctt gaaacactca gagccttgat
36001
       tctactcatt catttagttc ctccccaaaa gttccctgag cccctgctag gcagtgggga
36061
       tttggcaata agacccagtc cttagtcctc tgctcatctc tccacactcc gctcttatgg
36121
       ctccaactct cacatcagca aagggctttc aaagactcaa agcacctcca cactcattac
36181
       ctcttgtaat aacaaaattc aactctgcaa actttgcaaa acactttata tcgtaatcct
36241
       tttttcccca cccScactgg gcgaaagaac ctattcttgc aaccaacact atcctgaaaa
36301
       tgtggaaaac ctctaatgga agtgcaacca agtgctcctg gaattcgaca tgcttttta
36361
       tgtccttccc acccctagtt ctcccctccc tgcccactct cccttcgcac ttcgcttgcc
36421
       taccttacag cagagttcat tttgtcggtc tcttctaagt ggtgggctcc tggagggctt
36481
       ccaacqqact gatctctttg tagactccat attactcggt gcttaaatat ttgttgaaat
36541
       gcagcaagat cagggagtaa ttcagcacca attgtttacc tgatcctgga aacctcatct
       ctgcccctc cattccccag gagagtctgc ccatttgaaa actgttcctg ggtttatttc
36601
36661
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36721
       accttgggta ctgcagagcc caccaccagt ccaccctgaa acctcaaagc aggcccacag
36781
       ggtagatatc tagggacctt gaagcaaaca tttcacctat tcaggacaca aactaaataa
36841
       gcttgtgtcg cttagtaatt ctgtaatgtc ttacttatgc ccttgggcaa actccttaaa
36901
       atatttgttt ctgttttccc atcaataaaa tgagaattga agcacctatt tcttaggatt
36961
       attgtgaaga tttgatgaat taacactagg aaatgtgcct agcactgttt aatatgtggc
37021
       agaggeteaa taaatacatt attattatta ttaetattat tgacaggtta aaggeetgtg
37081
       atgatactga ctccagcata actctgatac tgcccctttg actcggctag ttttgacaga
37141
       gggccctttg acaacaccta aaaaacaaac cactaaactt tcagttttta aaaaaatacc
37201
       aggtaagctg ggtacagttg gctcacgcct gtaatcccag aacttgggga ggccaaggct
37261
       agaggatgat aggaggatct cttgaggcca gtttttaaca accaactctc cagYgaacta
37321
       atccattcct gccagaacaa atccagtctt acaagagtat gaatattaga gctacaaggt
37381
       accgccaaga gacagggttt tgctttgttg accaagacca gcctggtcaa cataggaaga
37441
       ccccatctct acaacaaatt taaaaattag ccaggcttgg tggcacatac atagtcctag
37501
       ctactcagga ggctgaggca ggaagatcac ttgagccctg gagttggagg ctgcagtgag
37561
       ttatgatcac gccactgcat tccagcctgg gcgacagagc aagaacctgt ctctaaaaca
37621
       acaacaacaa caacaacaag taatgtgaga aacaaatgcc ctccctccct ccctgagggt
37681
       cacccccagc ctgacctgat ggatgggaaa agataagctc agagatgggg taaggataag
37741
       gtgggagtta ggaatggggt agaggtcagg gatggactga gaactaggaa agggaaggat
37801
       caaagatgga ctggaggtct ggaagcagga agagagaaat ggagtaaggg tcagggctgg
37861
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37921
       taatttttca ccaccaqctc ccactacaqc atccaaacat cctqctctqa aqqaqtqqqa
37981
       gcagggacag ggaagaagaa gaaaccttaa ctgagtgaac attttaaaac aagcaggaca
38041
       tttcgaactc aaatagtaag agtcactttg ctgtccaaat cccaccagtc cttggtgtaa
38101
       tactacaagt gggacttaca agcaggaccc gcaagaaggt tctagtaact acctcagctt
38161
       gcaggacgta aaatgcctgg cgaactttgc attccaagga caggagtctt ccaaattaaa
38221
       attttaatag tgtgtgaaaa tagttcgcca tttactctta ggatgaggta gtgtttagaa
```

## FIGURE 3-K

38281	agtcagcctg	gaaatccagg	ccaacatttt	cagggatgcc	tcctattctg	ggaggagaaa
38341	aaccagcttg	ttgcttccct	ccagtagcac	aaagcagcag	ggaaccggaa	agagagaggg
38401	gtctgaacag	cttcttctac	caggaaacca	gccaaaggtc	tccgggcatg	taaggacatc
38461	tgttttcaga	agctatggtt	tggattttgg	cattcttagg	agtctaggag	caatcctact
38521	aatttgggtt	ctagctccaa	ccatactacc	tacctgctgt	gcgaacccag	gcaagtgatt
38581	ttacctctct	gagcctctgt	ttgctcatct	ggccctctag	acaagattaa	cttggcagtg
38641	ccttgtagct	ctaatattca	tactctcata	agactggatt	tgttctcaca	ggaatgaatt
38701	agttccctgg	agagttggtt	gttaaaacac	cagggccccc	ttgggtttcc	ccatcttcac
38761		tttccctttg	_			
38821		gggccatgcc				
38881		tataaatgat				
38941		tcgtcacaca		-		
39001		ccctccatca				
39061		aaagagtgag				
39121		gcaggcatga				
39181	-	aagtgcatgg		_		
39241				_		-
		tggcaggtcc				
39301		gtgattctca				
39361		tgattccata		-		_
39421		taccaatgca		_		
39481		agaggttcta				
39541		catctccttt				
39601		cttggggtta				
39661		gtacatgttg	-			
39721	, ,	aatgccttct	_		22 2	
39781		taagggcaat				
39841	tccgtgccct	cccacaacat	cccagtgctg	tggtccagca	acatacccgc	cccatccctc
39901	caactcagaa	catgctcatt	gatgtgcctg	aacccaggct	aaatgggagc	acacctatag
39961		cctgtcagag				
40021	ggaagagacg	ggMggagaat	gtgaatcaca	ttcatgccag	ggtgtgttct	aatacgtcag
40081	caaatgtgta	ccgaScttcc	gggctgcaga	ggaaggtggg	cgtgtgtggg	gttagtgact
40141	tgaagggaaa	gaggggcatg	aaaaagaagg	gggtgaagag	ttagaactgg	tgcagcagct
40201		cacaaatggc				
40261		gaaacaaaga	_		_	
40321		caagcaccca	-	_		
40381	_	tgccttgacc	_			
40441		tgctggaaac	_			
40501		tgagccctaa	-	-	-	-
40561		taagacttgg			-	
40621		aaccacggtg	_			
40681		gtgaaaagga				
40741		agtcccagac				
40801		caccaagtgg				
40861		ccaccaggcc				
40921					-	
		aacattcaaa agagattggg				
40981						
41041 41101		ccccagaagc				
		aaccttgcca	-			_
41161		tgtgaagtta				
41221		cttactatcc				
41281	-	ccacatttat		_		
41341		acataggccc				
41401		aaaacacttt				
41461	, ,,,	ggcaagctgt				
41521		gcttgctcca				
41581		tccaagacaa				
41641		cttggaacct				
41701	tgtatctaag	atctgcccca	agtgagctcc	aggaggcaag	gagggaggcc	agccatgtta
41761		taaagaccaa				
41821		agtcccttac				
41881		cggcccccag		_	_	
41941		tgttgtcaaa				
42001		gcctcccaac				
42061		cagggccagg				
	399	222 22	22 2222	25 39		

#### FIGURE 3-L

```
42121
       gcaacatcct cggcaagtct gggaaggagg tggaggcagg gaggcaaagg gaaccgaccc
42181
       agaacacttc ccatgacgtc accgagagcc acctgagctg cacctcagga ttcctgaaac
42241
       actgctggcg gagcggagag tacggagagt acgctgggcc cggtgggcag ggctcagcag
42301
       ggcatggagg ctttgtagct aggcctgggg ggagagggcg ctctagtatg ccacttgtca
42361
       tqtacacttt ttctqctqac acaqaqcaqt qtqcaatqcq tccqqqaqqc tqqqcaqccc
42421
       agggctggcc caagctctgt ttgcctgagt tggcagtggc agggcccatg gtgaccaaac
42481
       aaaagacggg aagccaaacg cccagaggct ggcgggtgag gctccctgag agggctctga
42541
       ggatacaggc actggcgaag aagggccagg ggctcatagg gataggaatg ggKttggggg
42601
       caatgggaac ttgcaggcag ggtcccctct ggtttcccag acacaccgca tcgcctctgg
42661
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42721
       atgacaccag gaaggggagc aaaccaccaa atctgagatc caaacaaggt cccagcattc
42781
       ctttgtccct gatgggctYg gctccaaatt ctgggagaaa ccagagggtt ttgagagagt
42841
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42901
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42961
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43021
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43081
       ctqcaaaaqY tttqcaaact ctqaccacqc aqccaqtcaq ccacttccca qcccacaqca
43141
       acqaqaqaqt ttttqctaca tcaqaacaaa cccactcaca aatatctcat cctggcctcc
43201
       ccccggcac ccattccttt tgggtctgtg tgcctgcctt cctcagaaat gacattttgt
43261
       cagagcagtg agagatagtg ttgcaggggc caaaggcagc cagggggctg gactgcaact
43321
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43381
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43441
       aaatgagatg atggatgctg gggctcgagc acagagatga ggggctccat gacggctggt
43501
       cccctcctt cccaccttcc tctccagggc cctccggcac cataatcagt gtgggaagga
43561
       tqcaqaacaa tqqqaqttta attcaqaqqt tqqcqaqqca aaqqcatact ttaataqaat
43621
       tetetetege ceagtacatg gtttettgte caccecace acettteece atetetaceg
43681
       gctgatagtc tctcagctag tagacctttt cttgtttagc agggccactt tttttaaaaa
43741
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43801
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43861
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43921
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43981
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44041
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44101
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44161
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44221
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44281
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44341
       gtaagcccag ctacttggga ggctgaggag aactgcttaa ccgggaaggc agatgttgca
44401
       gtgagccgag atcgcgccac tgcactccag cctaggcgac agagcgagac tccgtctcca
44461
       aaaaaaaaaa aaaattaact cgacatggat cgtagagcta aatggaagac taaaactttc
44521
       aaacttcaga aagaaaactt ggaagaaact ttttctaacc ttgggttaag caaaaatttt
44581
       cttaaatagg acataaaatg catgagtcgt aaaggaaaaa aattgataca ttggacttca
44641
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44701
       cagactgaga gaaaatattt gcaaaacata tatctgataa aggatgttta gtcagaatat
44761
       ataaagaact cctaaaactc aataagaaga caaatgactc catttctttt aaggtcaaag
44821
       aactgaacag acatttcaca aaagaaaaga tacagatggc caaaaaagcac atcaaaaaaa
44881
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44941
       aaacatctat tataatggct aaaatttaaa aggctgacaa tgccaagctc tggcaaggat
45001
       atagaataac tacgactctt acacactgcg tgtgggaatg ctaactggta cagccacttt
45061
       ggaaagcagt ttggcaattt cttttaaagt taaatataca attatattt catttctccc
45121
       agagatttgc tcaaaagaaa taaaaacata tgtctacaca aagacctata aataggaata
45181
       ttcatagcag ctttctgcat aatggccaaa acttgggaac acccaagtgc tcatcagttg
45241
       gtaaatgaat aagcaagttg ccatgcagcc acacagtgga acgcacccat acatgcagta
45301
       acatggataa gtcttaaacg catggtatca gttcctattg ctactctaac aaattactac
45361
       aaactcagta gcttaaaaca acacagattt actgtcttac agttctggag gtcagaacgt
45421
       ccgaaatcag tctcactggg ccagcatcaa ggtcagtttc cttatctttt tcagctccta
45481
       gaagecacet geatteettg acceatggee cetteeteea aagecagttg tgttgeatet
45541
       tctatctaac tgcttaaggg aacaggactt tatcaaggca cagagccaca gcaagtatgg
45601
       gaaacatata agtagttcca tatttccagg gtgtgtaatg taacatttcg aagataagga
45661
       aactgagatt cagagagatc caatatctta cccaaggtcc aggacacagt gaaaatcatg
45721
       ttcaacccta aggcctctga atccaaatcc agagtccacg tgagccctca gacttccctg
45781
       ccttgaccgt ggatagtcat ctccaccttg tctcagagcc ctgcactccc acccttgtac
45841
       actgcaccag cagctaagcc tgtggagcca ggcagaaccc tgggcctccc cacctcccca
45901
       ccctgggacc aacagattcc cagctccagc aggataacat cataacctta ataagattga
```

#### FIGURE 3-M

```
45961
       catttgcatc ctgttttata ttcatcagca ttcttacact tacgttatgt tatctggcct
46021
       tctccatcgt atgagtctaa tggtgcagat attctccacc ccacattctc caaccctcag
46081
       aaagctgagg tactttctta tacagcaagt gggtagaagc caagatcaga accttacccc
46141
       caacccaccc cttgatacca gaagagccta ttgactcaga acaaaactca ggcaaacccc
46201
       ccacctagct gagetteece teetteatet geaggatgga aaacagggta atacctgeec
46261
       46321
       cactttggaa atgttaaaat gctatgcaaa ttataaggaa ctgttctgat tatactctca
46381
       agaaatgtca caaattttct ccaaaagtga ataattgtca ttacttttca acttcatccc
46441
       cttgaaaagc cagtttctcc tcctgtcatc ttttatttct ggttaaagca gagatgttat
46501
       actcaacatt ccaactggaa tatcaagatc aatctttaat tcctccttcc agcttcaccc
46561
       tttctgaaat caagaacagg caattctcta ctccacccac catctcatcc tcagtttctc
46621
       ttgccatctg ccccctctg aagctagaaa tcaccagcaa ccattttcat tcctcatccc
46681
       tcYggtctct cctcagtcag agccaaccta catgatgcaa aagcaccact ccaatcacct
46741
       ctctcagagg ctcacagccc cggggggaca gcgtccaggg gtcctccacg ggctgcccca
46801
       gtgaagctct ccagcttgtc tcccatgact caccaaccca ggtaagccta aatggccctg
46861
       tttcccaaaa ctcaactctc ttcccacttt tatqtcccca ctatatctqq aactcccttt
46921
       cccactattt aattagctat gggggtagga agaatcaaac tagaccccca gctcttacat
46981
       caacctaaat atattccaag tgaatcaaag aattgtggtt aatggctggg cacggtggct
47041
       cacacctgta atcccagcac tttaagaggc caaggtgggt ggatcacctg aggtcagagg
47101
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       aataatacaa aaattagcca ggcatggtgg cgcaagccgg tagtcccagc tacttaggag
47161
47221
       gccaaggcag gagaattgct tgaacccacc cagcagatgg atgtttcagt gagccaagat
47281
       tgcaccattg cactccagcc tgggcaacag agcaagacac cacctcacaa caaaaaccac
47341
       acacacaa agaattgagg ttaaaaaaaa tccagattat atagatgaat atctatctga
47401
       tagctgaatg gggctggaat ttctaggcta catagcaatg gagtaaatca gaggagaata
       aaatgaataa tagttaacat ttacctattt tcacttcttt taactggata tccatatttt
47461
47521
       aaaaqtaaac ataccettta etteatqttq tacacaaaaa ataacaaaat qqatcacaqa
47581
       atgaaagaaa tgctaaaatt agaaaaattc cagaagaagg ccaagcacgg tggcctgtaa
47641
       tcccagcact ttgggaggcc aaggtgggca gatcacttga ggtcacgggt ttgaaaccag
47701
       cctggccaac atggtgaaac ccctattaaa aatacaaaaa ttagctgggc atggtggtac
       acacatgtaa tcccagctat tcaaatggct gaggcacaag aatcccttga acccaggagt
47761
47821
       cagaagttgc agtgagcagt gatcgagcca ctgcactcca gcttgggcaa cagagcgaga
47881
       ctctqcctca aaaaaaaaa caaacttcca qaaqaaaaca tqqqqaaaat cttcataacc
47941
       ttggtgtagg caaagattct taggacacag aaaataagaa tcacaaaagg gaaaaataac
48001
       ctggacttca aaattaaaaa tttctgctct tcaaaagaca ttgttatgct gggtgtggtg
48061
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       gaattccaga ccagcctggg aaacacagaa agaccctatc tctacaaaga agtttattaa
48121
48181
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48241
       gcttgagccc acgagttcga ggttacagta agctttgatc atgccattgc actccagtgt
48301
       gggcaacaaa gaccttgtct ctaaaaagat aaaaatttaa aaattaaaaa gacattgttt
48361
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48421
       atgattccaa tggcatcttt tatgttacgt atattttact acaatttttt taaaagatgt
48481
       tgttaagagg atgaatagac aagccacaga ttgggagaaa tgattcatag tacatatatg
48541
       tacatagtat agtcatacag tatatagata catgtataca cagtacatat atagcacata
48601
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48661
       caatttagta ataaggcaaa caacacaaca aaagatttga acagaccctg cacaaaagaa
48721
       gatagccaat aagcacgtga aaatatgctc agcatcatca gtcattaggg aaatgcccac
48781
       taaaactaca gtaagctacc gttcacaccc attaaaatgg ctaaaattca aaagactggt
48841
       aatgtcacct gctggtgaga atatatagca accaaaagca cagccactgc tgacgggaat
48901
       atgcaatggt gcaaccactt tagaaaatag tatggtagct gcttattcta aaaacatgca
48961
       tttaccatat gattgagaag tttcactact aagtatttat ccaaaagaaa tgggggaaaa
49021
       tggtatgtca aaaaagagac atacacagat gctcgtggca actttattca taatagccaa
49081
       aaactggaaa caacccaaat gtccatcaac tggtgaatga ttacaatatt ttggaaaatt
49141
       catatgatga aaaactcagc aaaaaaaaag atgttactgc attggtatca ggactgaaaa
49201
       aaataaaaat aaaaattagc tgctaatgta cacaacaatg tggataagac ttttttttta
49261
       aaaggccgag tgaaataagc tagattcaaa agagtagata gtggtcaggc atggtggctc
49321
       acatctataa tcccagcact ttggaaggcc tggggcgagt ggattgcttg agcccaggag
49381
       ttcaagacca gcctgggcaa catgggaaaa ccccatctct actaaaaaata caaaaattta
49441
       gccaggtgtg gtgatatgta cctgtggtcc cagctactag ggagactgag gtgggaggat
       cacttgagcc caggaggcaa aggttgcagt gagctgagat tgcaccacta cactccaacc
49501
49561
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49621
       gtttacatga actcttagaa tcagcaaaat taatctacag ttacagagag ggggtgagta
49681
       caaagaggca ctaaggaact tttggggata ataataatat tctattgtgg ttacatgggt
       atacacattt gttaaaattc atagaactat ataYtttgaa tgagtacatt ttattgaatg
49741
```

### FIGURE 3-N

40001						
49801	taaattatac	catagtttta	aaagaacttt	ttaaaagtca	agatgcaaac	tggggaaaat
49861	atttgccaca	tgtatgacaa	attaatattc	ttaatataca	aaatgtcatg	caaattgata
49921	taaaaaaacat	taagacctca	acaddcaaat	aaccaaaaaa	cacadaaaad	ccacaaaaaa
49981	ggaaataaga	atatctaata	aacaggttaa	aattaaagca	atgaaatact	gtatttcaca
50041	aaccaaatga	gcaaatttca	cctatcaaat	gagtttttt	gtttttgttt	tttgctttga
50101	_	tgttttgttt			-	
	-			-		
50161	cactcttctg	gtaaaaatat	aaattgatac	atttctagaa	cacaatttgg	aacactatta
50221	tataaqcttt	agcaggaaca	ttaaaqttaa	gacccaaaac	cttaacaatt	ttcagattat
50281	ttgacccact	tctagaaacc	tatactaaaa	aataaacaaa	gatgaatgat	caaaattaga
	_	-				_
50341		caagagtttt				-
50401	tgggaggtca	agctgggagg	atcacttgag	gtcaggagtt	cgagaccagc	ctgggcaaca
50461	tgatgaaact	ccatctctac	aaaaaatttt	aataattagc	ccaggcacag	tagataacta
				-	22	J J
50521		agcactttgg				
50581	gaccagcctg	gacaacatga	tgaaacccca	tctctaccaa	aaatacaaaa	attagccgag
50641	tataataaca	catatgtttg	taatcccagc	tacttaggag	gctgaggcat	gaaaatcgct
50701		acgcagaggt				
50761	caacagagtg	aaactctatc	tcaaaaaaaa	aaaaaaaaaa	ttagcgggcg	tggtggcatg
50821	cacactactt	gggaggctga	ggtgggaggc	agageetggg	aggcagagtc	tgcagtgagc
50881		ctactgcact				
50941	aaaaaacaag	tctggccatg	gcggctcagt	cctataatcc	cagcacttaa	caaggtagag
51001	gcaggaggat	agcttaagcc	caggagtcca	agacctgcct	gggcaacata	gcaagacccc
51061	attetecace	aacaaaaggg	acaaaaaaaa	atttttatta	ctgaccttgt	ttctagcaag
51121			_			
		ggataagcca				
51181	gaatattgtc	catggtacaa	acttaataaa	tatttctcaa	atatactcaa	cgtatacact
51241	atataagaac	cttagaaagg	agtgagatgt	gtagatgact	tacacttatq	ggtagagaaa
51301	-	aattgtttca			-	
		-	, ,	2 2	_	_
51361		taggccgagt				
51421	aaggcaggag	gactgcttga	ggccaggagt	tcaagactag	actgagtaac	atggcgagag
51481	ctcatctcca	ctaaattttt	tttttaatta	accagacact	atcatatata	cctataatcc
51541		gaaggctaaa				
	_					
51601	aagctatgac	acgccactgc	actccagcct	gggtgacaga	gtgagatctt	gtattgaaaa
51661	aaagaggtga	aattaaataa	atcatggtat	gtccacacaa	tgaaatgcta	tgcatctgtt
51721		cagatctaat		_	-	-
51781		ccaagRtggg				
51841		accccatctc				
51901	atgcctgtaa	tcccagctac	tcgggaggct	gaggtgggag	gatcacttga	acctggaagc
51961		tgtggtgagc				
				_		
52021		ctcaaaaaaa				
52081	ttaaaggtgc	agaacagggc	acttggaatg	ctactatttg	aagggagaaa	aaaataaaag
52141		tatttatgtt				
	-	_				
52201		tatactgaaa				
52261	ttagatttac	tttttgctct	caattacttt	ctgtagtgtt	taaattttt	accatataca
52321	gatttttctt	tttcaaaaaa	acaccaccaa	aaacaaaaac	acagatttt	ttttagaagg
52381					_	, ,,
		ttatggattg	-		-	
52441		agagagtgtt				
52501	ccccctaca	ggttgaacat	cccaaattca	caaatctgaa	atgcaaaatc	ctccaaaatc
52561	caaaactttt	tgagcatcaa	catgactcat	gaagatetea	cccaatttcc	cagaageeet
52621						ccctattgca
52681	accagtacaa	aaagcaaaac	agaaagacac	taaagcaaaa	ccaaagtttt	agtcacaaaa
52741	accaaatggg	ttggcgaggg	aaggtggtgg	ttacagggaa	ggttttaagc	tcaccaggcc
52801		qqtttcaaaa				
						-
52861						cagctgccaa
52921	catqqaatct	aggtctccct	tctttcaaat	attagagatg	tgagaccaga	aagattactt
52981						ccttcactgc
53041					-	gcattcccaa
53101	ctggcttggc	caacatccag	agagactcca	ggctggtgag	tctgtgaatg	tgaagtagag
53161	ataagcaagg	caacasaaaa	gagetegeee	actottatat	acquactaca	gcattgcgtg
		-22-2~3999	+000ttt0	2022014464	gazatagata	ctactcccc
53221						ctgctcccca
53281		ttctttcttg				
53341	tgagaacaag	gaaaaattgg	gggctaggga	ggtgtatgag	tgttttaatg	tgttaaaaat
53401		ctggatactt			-	•
53461		ggacaggcac				
53521	atgcttaggg	agctcagaaa	atgctatgct	tccttccagc	tgtagggaag	ctgagccact
53581	dadaaaaat	ggatgcattt	ggacaaacag	gaatggatgg	aaggctttct	aggagagggg
	ggggaagage	999	55			

#### FIGURE 3-0

```
53641
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53761
       ctccaactcc agggtaccac caaggagagc aaaatccaga aacaaggggc acctgcaaag
53821
       tggtggagga aagaggagga aaggaatgtc tgccccRagc ccagccccag ggtcagatgc
53881
       cgggaaaaat tcctgggatt atttggtgct gtatgagatg gatctggagc caccctggct
       ccaagaqqga tgtgggtttg gactggggct Kccaggactg gtctggggca agctaaggac
53941
54001
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54061
       cctccctgtt catggaaatc cttaaaaatc atctcctctg ggaagttctc ctgatgctct
54121
       cattcagaat taacccacca ttctttatgt cgcttcaaca agttgcttgt atctcttttt
54181
       54241
       gagteteact etategeeca ggetggagtg taatagegee atettggete aetgeaacet
54301
       ctgcctcccq qqttcaqttc aaqccctqct cctcctcaqt ctcccaaqtq qctqqqatta
54361
       caggiacting coatcacccc tiggetaattt tigtattitt agtagagating gightticacc
54421
       atgttggcca ggctggtctc gaactcccga gctcaggtga tccgcctact tcagcctccc
54481
       aaagtgctgg gattacaggc gtgagctacc acgaccagcc tacgctttcc tatatgcctt
54541
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54601
       atcttggctc actgaaacct ccacctcccg gattcaagcg attctcttgc ctcaacctcc
54661
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54721
       aagatggggt ttcaccatgt cggccaggct ggtcttgaag tcctgacctt aggtgatcca
54781
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54841
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54901
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54961
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55021
       catttttgat tcctgcatcc attcattcat ttgctcaaca accatgtgag tgcctaatac
55081
       ctgccaacct ggctcacact ctctcacaga gcacactcaa attgtttcat caaccagcta
55141
       aaaqtaaqtt caqtatcaat tcaqqqcttc ttttcaqttc taqaacataq aaaatttcac
55201
       aggatcacct gaacaccgca gggcgggtgc agcctacatc ccattgcctg tttctgtcca
55261
       gatggaaagt cacaccctca agaaggcccc tggggaagac agattgtctg ggatgtggat
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       55381
       ggaaccctag atacacctat cacaggagat ggcagttaag ataactctat ctacatacac
55441
       agtaccetgt ggatactaag taaggagetg gtcatttgga atgaggeagg agagetetag
55501
       gaagtcctct ctgcagagta gatgtggcca tggaggtggg aggattaact gaaggtcata
55561
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55621
       ctctgccatg gaggaaaaat acagatgggg gcagggggg gaaaggaagg gggcaggtta
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       gggacagtca ttgatctcgg cgggctcttc caagtctaaa attgtaggat tctaacctga
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55861
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55921
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55981
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56041
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       aggaatttgc acaagaggta aacttcattc ttattcagga gctcattcat tcattcagca
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56281
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56341
       aaaatacctg cccaagatgg aattaaagcc tggagggggt ggtactggga acaagacaca
       ttcacagatg gccgggcgcg gtggctcacg cctgtagttc cagcactttg ggaggcagac
56401
56461
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56521
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56581
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56701
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56761
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       tggttacgac agacaatatt cagaaaatgg aagaatcaga aagagaagaa agtggaacac
56821
56881
       acaaqaqaaa gaaaaccaag gccctcctcc ctcctgccat ggccctctct gtcttcagcc
56941
       ctagttctgg aaaagaaaag ggtgtgttgt cactagaggc ctccaggcag gtccatgcca
57001
       ctgagtcaca tttcaagctg tgtttgcttc ctacaccaac aaggcatatc ttttctgaat
57061
       tgtgcaatat tctggccacc tgggtttttc tacttggtat accaactcct agtactcaac
57121
       57181
       tctgcacaat ctcggctcac tgcaacctcc gcctcccaag ttcaagcgat tctccctgtc
57241
       teagecteec aagtagetgg gactacaggt geceaeegee atgeceaget aatttetttt
57301
       ttacttttag tagagacagg gcttctccat gttggccagg ctggtctcaa actcctgacc
57361
       tcaggtgatc tgcctgcctc agcctcccaa agtgctggga ttacaggtgt gagccactgc
57421
       gcctggcccc cctttactct taaatacagt gtgtgccagc tgtagtagtt tatgcctgta
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## FIGURE 3-P

57481	ctccgagcat	ctcaggaggc	tgaggcagga	ggatcacttg	agcccaagag	ctttaggctg
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57601		atacaatgtg	-			catctctact
57661		ataatgaata				tttttcagag
57721		aatattatct				taacaaaggt
57781		tatttccact				tctactcaac
57841		tgagtacctg			_	gtcatgcaac
57901		aacagcagat		-		ggaggagaag
57961		gtccctgtct	_			
58021		gattatcatg				
58081		gcaagaggat				
58141		cactgcagcc				
58201		attttaccag			_	
58261	_	acagagaaga	, ,	, ,,	, ,	2 2 2 2 2
58321	_	aaggctgaga		2222		
58381		ccaaggagtt				
58441		ggtgggtgac				
58501		agcactggac				
58561		ggactgggtg			-	
58621		tgggcttgag				
58681		cctcaagtta				
58741		tcttagtctg		_		_
58801		tccttgtttt				
		agggcaaaat			-	
58861 58921	_		-	_	-	-
		aataaatatt	-			_
58981 59041	2,2			-		_
	-	tgagacagag				
59101		gcaacctctg			-	-
59161	, , ,,,	ttacaggtgc			_	
59221		caccatgttg			-	
59281	_	ccaaagtgct				-
59341		attcctagat	-		_	-
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59581		caccatgttg			-	
59641		tcccaaagtg				
59701	-	ctaacaacaa				-
59761	-	cattgtttct		-		
59821		ttaagatgaa				-
59881		ctgaagaatt				
59941		tgcaccagtt	-	-	_	
60001	-	tgtccttata			-	_
60061	-	tttgggaaca				-
60121	_	atcccagttc		_		
60181	-	tttcctcccc				
60241		ggaatagatg				
60301		attatttcta			-	_
60361		aaatttcaga				
60421		cacttaccaa				
60481	-	aacccgacac				
60541		gaattaaagc				
60601		gggagcactg				
60661	222	gccatgaacg	-	-		
60721		taacctggag				
60781		ctataaaagg				
60841		ggaaacgtga			-	-
60901		gtcagagttc				
60961		gcaggcaaag				
61021		gttacaaacc				
61081		ctcacaagta	_	_	_	
61141		cacagggctg				
61201		tcgtttcatt				
61261	tcaggatcat	ccaagtatgc	tcccgtcagt	кдсадсасtд	agccaagaac	tcaaggcttc

### FIGURE 3-Q

```
61321
       agttttggca ctgggttttg ccagaggctt gaaaacatac caagaagtgg aaggtgtact
61381
       atgagctaaa tctcactttt cctgaaaata tagatgtgtg ctcacacagg cacacatgtg
61441
       cataaaaaggt agggaaagag gaaaacaaat gtagcaaaat gctagtaaat ggtgaatcta
61501
       agcaaagggg atattggtgt tcattgctct attttcacaa cttttcagaa ggcttgccat
61561
       ttttccaaga aaaatctgag gaagggctag gtgtggtggc tcatgcctgt aatcccagca
61621
       ctttgggaag ccaaggtggg aggatcgctt gaggtcaaga atttgagacc agcctgggca
61681
       acataacaag accccatctc aacaaaaaaa ttaaaaaattg ccaggcatgg tggctcacac
61741
       ctgtagtccc agctactcag taggctgaag caggaggatc gcttgagccc aggagttcga
61801
       ggctgcaatg agctatgatt gcactactgc actctagcct gggcaacaga gtaagaccat
61861
       qtttctttaa aaaaaattaa aattaaaaaa taaaaaattt tgagggagaa agataaagca
       ctaactagca atctaagata aaaaattttt ttaaaaaaat cacttggaaa agagtaggaa
61921
61981
       ttcctccttc aatttcattc agtttcccta gctagggact aatatcctta gaaaaagtta
62041 taagaaatcc agaggttaaa ggggtgggac tccaaacaag taagagatcg ccagtattca
62101
       tagcagtccg cagctacagc aatcttagaa tccaaatacg atttcagata ttttgtccca
62161
       tcagctccta aaatacatat attctggtca caccatgtat cctctgttgt ttttggtgca
62221
       aaaagtaaag taaccatgaa ctacagatag ggcaaatgtc agaatttttc caggggactt
62281
       tatcaccttt gcaatacagg tagtttataa atgcaataca atatagttta atttctattc
62341
       aatttgcaaa ttctttcaca tgagtaaatc atttaatcaa aatccacatc caacccacac
62401
       tcaccatgtt ctctatccat attagtattt ggtttgggcc atactgggtc cataatccag
62461
       ccctgaaaat ctatcctggg ccacatatat aactcatacc aatagcaggg cactcaaggc
62521
       atgaagattt gagggaacac aacctatcca agaaacctca aggaattcct tatggctgaa
62581
       qtaaqqtctq aggaaaccat gaqcagggga atatgacttg gagagaaggt agaggttaaa
       tccaggaggg ctcatacacc caacaaagga gttggaagtt tatccttcag aaaacaagga
62641
62701
       gtcactgaag ggttttaagt aggcagtgat ataattggat cattctggca gagtacagat
62761
       ggatgaaagt aactcaaagc taggaagact atcggaatga caaagacctg aactaaggca
62821
       gtctgagcgg gagtgaactg ataacacatt aggaagagct attgaccaca gcaaatggac
62881
       aaaactgggt gggaagaggg cagatgtgtc tgagagagac agaaaggatc ccagatgacg
62941
       tctagcttgg ccaactaggt agacgatgac aacactcacc ctgacgggga atccgggagg
63001
       aggcgaaggc ttggcagagg aacgtggtga gttttgaacg tgttgaggtc ctggttggat
63061
       atacaaatat ggagctccag aaagaagccc aggatgaata tgtgcattgg gagtaaccaa
63121
       cattaatgta cggggatgga tgccaagggt gcagaggagg tcagccagag aattgggggc
63181
       aaaacaagaa ctgagtcaag gacagaaact ctgggggaaa aaaaaaattt aagggcagtc
       agggaagaag agaccccaaa aaacgttgag gagtagccaa agaggtaaag acctaggcct
63241
63301
       gcttttaagt gacccactaa actcctccat ctccacaggc tggtcacacc atgctggggc
63361
       tggggaagga ataatcatgt gttaaaataa actcatttct caatgaaaag acaaacagcc
63421
       caatttaaaa atgggcaaat aacaaataga catttctcca cagaaaacat acaaatggcc
63481
       aatagacaca tgaaaacata ggaagtatca ttcggtcatt agggaaatgc aaatcaaaac
       cacaatgagg ccgggcatgg aagctcacgc ctgtaatccc agcactttgg gaggtcgagg
63541
63601
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63661
       tctctactaa aaatacaaaa attagccagg tgtgctggtg cacgcctgta atcccagctg
63721
       ctcaagaggc tgaggcacga gaattgaacc tgggaggaga aggttgccgt gagccgagac
63781
       tgcgccattg cactccagcc cgagtgacag agtgagactc tgtctcaaaa caaacaaaca
63841
       aataaacaaa aaacccacaa tgaggccagg catggagtct gacgcctgta acgccaacac
63901
       tttgggaggc caaggcgggt ggattacttg aggtcaggag tttgagacca gcctggccaa
63961
       tatggtgaaa tcccatctct actaaaaata caaaaattag ctgggcatgg tggcaggcat
64021
       ctgtaatccc agctattcgg gaggctgagg caagagaatc acttgaaccg gggaggcaga
64081
       ggttgcagtg agccgagatc gtgccactgt actccagcct gggtaacaga gtgagactgt
64141
       ctcaaaaaaa aaaaaaaaa aaaaatcaga taccacttca cacctggtgg gatggctaga
       gtcacaaaga ggtagaggaa ctggaccccc catacatcac tgattggaac acaaaatgcc
64201
       acagtcactg tggaaaacag cttggcagtt cctcaaaact tcaaacacag agttattata
64261
64321
       tgacccagaa actcctcccc taggtatata cccaaaagaa ttgaaagcat atgtccacgc
64381
       caagacttgt acatgaaagt ttgtgttagc attcttcata acagccaaaa agcagagata
64441
       aagcaaatgt ccatcaacag atgaataggt aaatcaaatg tggcgtattc atacaaggga
       ctattattca gccataaaaa ggaagggagt actgaaacat gcaacaacat ggctgaacgc
64501
64561
       tgaaaacatt atqctgagtg acagaagcca gatacaaagg ccacatgtgt tatatgattt
64621
       catctctatg gaatatctag aatagggaaa tccaaggaga caaaaagcag attagtggtt
       accaggggta gaggggacag gggagtgggg agtgtctgct tcctgagtgc agaatttctt
64681
64741
       ttttcttttt ctgtcaccca ggctggagtg cagtggtata gtctaggctc actgcaacca
64801
       ccgcctcccg ggttcaagca attctcctgc ctcagcgtcc tgagtagctg ggattacagg
64861
       tgcacqccac catqcccqc taatqtttqt atttttaqta qaqacqqqat ttcaccqtqt
64921
       tggccaggct ggtctcaaac ccctgacctc gtgatcctcc ctcctcggcc tcccaaagtg
64981
       ctggaattac aggcatgagg ccaccatgcc aggccaggat ttctttgtag ggtgatgaaa
65041
       atgttccggc atcagatgtg gatgatggcg gatgtactaa ccaccactga attacgcact
65101
       ttcaaatggt tagaatggtg aattttatgt tgtgtgaatt ttctctcaac agaaaaattc
```

# FIGURE 3-R

CE1 C1		t	~~~~~~~	~~~~~~~	~~~~~~~	++a+aaaaa
65161		tacaaagtga				
65221	tgcagcagga	gctccagata	ttctgagtaa	agaagccaaa	cagcctgctt	cccgggagac
65281	ccttaaatgt	cttcacacat	ccacagetgg	gggaggagac	gctgatgaac	aggagaagat
65341	_	cctcccctgg				
						-
65401	-	ccagggtggc	-	_		
65461		ggtctcacct				
65521	ttccaggccc	aggacaccca	gaagccacca	aaaaccaacc	tcatggttca	tcccccttat
65581		gacacctaaa				
65641		atcccgaggg				
	_					
65701		ctttgaaatt	-			
65761	aggtccaaag	aagaagccag	tgaggaacag	gaggctgatc	attgtgttct	cagaaggggt
65821	tggagcctct	ggggaggggg	cactgaggac	agagcacggt	gttctgcaga	tcatatcaca
65881	tctctacttc	cctctccagt	gatatgcttc	cctcactctc	ccattttqct	ccctctctcc
65941		ccagggcaac				
66001	-	actccagaga				
66061		gcgcaccctc				
66121	gagcgcaatg	aaactaggtc	ttcccttggg	gttctgacca	cctcgtgggg	agattatgat
66181	tgccctgtgg	ttgccatgcc	tactgtgatg	tcactccttt	tatcagtcta	tctggatgaa
66241	tttttccccc	ttttctctga	aggaaacctc	ctacccagtg	cttaggagcc	cattgggagc
66301		gtcttatctc				
66361	-	atgaagaaaa				
66421	-	aacctatttc				
66481	gaaagatcca	atcaccttta	cttaattggt	cagaataaaa	tcacttttt	ctttttaagg
66541	cagagtttcc	ttctgtggcc	cacactggag	tgcactggcg	caatctcagc	tcactgcaac
66601		caggttcaag				
66661		accacacctg				
66721		actggtctca				
66781		attacaggca				
66841	taagtgcaaa	gaagaatgag	ggtggggaa	aggtttactg	atcccacact	ttgtcatgca
66901	cagaggaagg	caaagaaaga	aagaaaactc	tttcctaaat	gatcacttgt	ctccagcagg
66961		ccattccagc				
67021		ctactatgca				
		_				
67081		aataatagga				
67141		ccgaggcggg				
67201	acatggtgaa	accccatctc	tactaaaaat	acaaaaatta	gctgggcgca	gtggcagtca
67261	cctgtaatcc	cagctacttg	ggaggctgag	gcagaagaat	cgcttgaacc	tgggaggcag
67321	aggttgcagt	gagccaagat	tataccatta	cactccagcc	taggagacag	agcaagactc
67381		aaataaaaaa				
67441	_				_	
		gcctccttca	-	=		
67501		gcggccttca				
67561	acaggttttg	ccccagatcc	ttgagtgaag	accccagcct	gctgcaagct	ttttcctcat
67621	tctgtcctcc	cctcctggaa	tctgtggcag	cttccacagg	cggtgaaaga	aggcagcaag
67681	cagtggctcc	agtgccagct	gcagcaacca	caccagggga	atggggccat	ctgacacaga
67741		gggccaggga				
67801		atgggcctgc				
67861		ggtggctcac		-		
67921	tcacttgagg	tcaggagttc	gagaccagcc	tggccaacat	ggtgaaactt	tgtctctact
67981	aaaaatacaa	aaattagctg	ggcgtggtgg	tgcacacctg	taatctcagc	tgttcagaag
68041						cgagatcgag
68101						agcaccctgg
68161		agtccattca				
68221	, ,,	cacagtaact		_		
68281		agctactcgg				
68341	ggttgcagtg	agctgaaatc	acaccactgc	acttcatcct	ggatgacaga	acgagactcc
68401	gtctcaaaaa	aaaaaaaggc	aattactqtt	ggcatcagca	gcacagttgt	tttcaqccaa
68461		acagaactag				
68521		ctatcatata				
	-					
68581		agacagaatc				
68641		actctgcctc				
68701		aggagcacgc				
68761	ggcttcgcca	tgttggccag	gctggtctca	aactcttggc	ctcaagtgat	ccatctgcct
68821	cagootocca	aagagctggg	attacaggtg	tgagccaccg	catctqqcca	tatatattct
68881		agcgggaaca				
68941	aaadaddaac	tcccaagtaa	tatcaactto	caaacctato	aattttato	ttaaatacto
00741	aaayayyyac	coccaaycad	caccaactig	caaacctaty	aaccccacc	ccaaacaccy

#### FIGURE 3-S

```
69001
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       ccagcccacc gaataagcca caactatgag ttcttccgtg attagcgggg ctggggatgt
69061
69121
       ggcaggcagg cgtggaagtg agatccacgt gaaagaccta agcactgact ccccgaggga
69181
       ctggcgaaat gacgcagggg ccagatagat gtcagatttg gccaaagtgt cctcctttct
69241
       cacaaqcccq tctqcctttc acctqtcctq aggtaggaca accqgatqcc ctactttqct
69301
       qtqcaqcccc actctcttqq qqacaqtaqc ccaaacaqqc tqctcttqct acacacaqat
69361
       aagaagcttt gccacccaaa accaagaaag gggccggtga ggacacacag ggaatgctca
       ctcagtggtg gctgagtttg tggaagtagc aaaacctgca ctgtaggacc cacacctgtg
69421
69481
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       gggcagcaga gcccagctcc aggtgcgatc aggaagtgac ctgagaagct ggagttctqq
69541
69601
       acteacagae ceaggettga attteageae cacteagtea etgtgtggte ttgagtgaet
69661
       tgcccttgtt tttcctcatc cataaaatag ggataaaaat acctgacctt gaaaaattat
69721
       acgaatgcca gcacacagta catacgcaca gcagagacag gagctagaat tattgatttg
69781
       ccaaatgcag cagtgtctgg actcagccgc ccacttctga ccaatggcct tcacttgtaa
69841
       cacagctgat ctggagggta aagcctgcag ccgtggaacc aagctctcgc caaggtaact
       gacccatgtg gggctcagag ccttgttctt actagaacca ctctagtttg tttgattttt
69901
69961
       tttatttatt tatacacata attctgtgca ttcctttatg catatgtata catatatatg
70021
       catatgtata atttattcaa atagcatcat atcactgata ctattctcct acgccctacc
70081
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70141
       tgtatccttc cacaattctc cccatattca tgtaatttta cacacacaca cactgaatag
       tgaagttttg gacagtgtgg gggcgttatt gtttaacaaa aatggaatta tacatcatac
70201
70261
       acagtetete cetettttt tattetacea taatttgeea aaateetttt aatggttetg
70321
       ttataattca tgatataaag gtgtcaaagc tattcagcca ttcctctact gatgggaatt
70381
       cactcagttt caacttttgg ccactaccaa caaaaaagca ataaattcct tgacagtatg
70441
       tcctaaccaa agaccatttt ccaaccagac aaaaggccag gtcccaggat gtgagggtca
70501
       cccatgaaaa ggacctcatg atgaactcct gattcagcca catcatcctt aaaattctcc
70561
       ttaqaaqaqa qaccctctgc tcctagaaat acaaattccc aggcatgggt ctggcttcca
70621
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70681
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70741
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70801
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70861
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70921
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70981
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71041
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71101
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71161
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71221
       gtctattctt gaaaaaaaat gagaaatttt gggaaaacaa tcttaaaatt tccatttcga
71281
       gtagcagttc taaaagactt tcaagagcct ctctgaaaag aagcagttac agcaacttga
71341
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71401
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71461
       gtggcttatg cctataatcc cagcactttg ggaggccaag ataggatgac tgcttgaggc
71521
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71581
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71641
       taggaggate gettgageee aggaggteaa geetgeaagg agetatgatt ataccaetge
71701
       71761
       aaacctgact atagaagaat tttcttcatc aaaatcgaat caagcagata attggcaccc
71821
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71881
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71941
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72001
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72061
       tacaaccaca gccaacgctg ggtgaatctc acaaacgcaa tgttaaaggg gaaatccagc
72121
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72181
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72241
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72301
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72361
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72421
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72481
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72541
       agacgcttgt tatcccagct actcaggagg ctgaggcaag agaatcactt gaacccagga
72601
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72661
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72721
       ggacaaggct cttggagcca tattttattt gKcatgtatc attccgggga gctctcctct
72781
       gtcaatgcca agactagcta gtcgagtgtg gagaaaaggc attctgtgag aacagatgaa
```

## FIGURE 3-T

72041		annactages	a+++a+++aa	2222224+2	+++	ataaatataa
72841			ctttctttgg			
72901	agcctctacc	ccaggtaatt	agtccaacac	actatccatt	acagctgagt	ccgggtttgc
72961	ttcaaaagca	tcaaaaattt	tttgggtttt	gcttccctta	aaaaaaaact	tottttgaat
73021			aattttata			
73081			gatggaaaag			
73141	aacttgggct	tccattcagt	tcaataataa	tatttatcat	agctgctaac	aattttttc
73201	tetttttga	gatggagttt	cactctggtt	acceagacta	gagtgcaatg	acataacete
			tcccgagttc			
73261						
73321	agctgggatt	acaggcatgt	gccaccatgc	ccagctaatt	ttttatttt	agtagagatg
73381	gggtttctcc	atgttggtca	ggctggtctc	aaactcccaa	cctcaggtga	tccacccgcc
73441	tragectece	aaagtgctgg	gattacaggc	gtgagccacc	acacccagec	aatagetget
73501	-		tatgctaggc		_	
				_		
73561	attccatctc	tatctatgag	gttgggattg	atataatccc	cactttacac	ccagagaggg
73621	taataacttg	cccaaagtca	cacagctaat	aagtgacaaa	gctaggcagt	ttggctagag
73681	tctatactct	taacaattat	accatattgt	ttcctagtaa	gcatttctta	tacccatact
73741			gacaaaagga	-	-	
		• .				
73801		-	gcaatgatga	-		
73861	cagaacaaaa	cgttagaaaa	ctgcctccac	acatctggac	attaagacta	aaatgcagtg
73921	cctattttct	cattggtatt	attctattca	atagagtcaa	ttttaagact	aagcattcct
73981	-		ggtcatgaaa		_	
74041		-	atatgtttgc		-	
74101	aaaggattgc	ttaccactga	tctaacaggg	tcttgaatac	agggtccctc	agagggtaca
74161	agaagcccag	gtgttcaggt	tattaaaaaa	tgaagaaatg	caaagcagga	ttacaacatt
74221			cacacaacaa			
74281		-	acacaatgta			_
		-	-		-	
74341	ctctacattt	ttaaatattg	actcagaatg	ccctgggaat	gacgtggtca	aggcacagac
74401	tgtgcatttg	acactttgtg	atgaacatct	tggtgcacat	ataatctagt	gcacagataa
74461	tatcaaaatc	tcattagaat	cctccatgga	accaggtatg	gtggctcata	cctgtaaatc
74521	-	-	ggccagacga			_
				_		
74581		-	tctacaacaa			
74641	cgtctgtagt	ttcagctact	tgaggatcac	ttgagcccag	gaattggagg	ctgcagtgag
74701	ctataatcgt	gccactgcac	tccagcctgg	gtgacagaga	aagaccttgt	ctctaaaaag
74761			cccaagttaa			
74821	_		aaagaacaaa			-
74881			ccatgaaaga			
74941	ggatgaaaac	cctagactat	ggccaccaac	agacccaagc	tagccaggtg	tagacctctg
75001	tgacacctag	aggtcaagtc	caagaggtca	gctgaagtta	cgaaaggcag	gcaggaactc
75061			acgagctagc			
	_	_				_
75121			ctctccacag			
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75241	ccattgcaac	atggcaccca	atgccacttt	ccagagtagt	gtgacgtcca	attccaagac
75301	ctggaggata	aaaggtatta	aagctcctgg	gaccacagaa	gagacagggc	agaaagctgg
75361			ctgtttcttt	_		
			-	-		
75421			ctgttctgaa			
75481	tgcagaagat	gggaaacatg	ataccccctg	cagatcagag	gacaccggct	ccctgtaaga
75541	ggatacccca	acccttgtca	gtgcagcacc	cggcagggcg	atttttacat	ttttctcctc
75601			aggccaccag			
75661						gagtttttat
75721						attttatttg
75781	agacagtctc	cttctgtcac	ccaggccgga	atacaatggc	atgatctcag	ctcactgcaa
75841	cctctacctc	ctgtgctcga	gcaattctca	tgtctcagcc	tcccgagtag	ctgggattac
75901			agctaatttt			
			_			
75961			tttttttt			
76021	gtcgcccagg	ctggagtgca	gtggtgcgat	ctcggctcac	tgcaagctcc	gcctcctggg
76081	ttcacgccat	tctcctgcca	cagcctttgg	agtagctggg	actacaggcg	cccgccacca
76141			atttttagta			
76201			gtgatctgcc			
		_				
76261			agcctaggat			
76321	cctgcctcag	cctcccaaag	tgctgggatt	atgagccact	gcacccagcc	agtagcagag
76381	tttttaaata	acttccagag	ccctttactg	gagacacacc	caagaagatg	ggctcttatt
76441			accatcaact			
76501			acatcctctc			
76561			tttcaaaaca			
76621	cattaacatg	ttatcttcat	taacatgttt	atcttcatta	acatatttct	cagtgataag

### FIGURE 3-U

76681	22222222	~~++~~~~	ccccct++cc	2+222+222	2022000+0	+ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
		ggttcaacat				
76741	taaaactgaa	gaggcggtga	atccaggagg	gattccccag	atatccgtga	gttggtgttt
76801	gactttcttg	aacacgtctt	tcctttactt	tacacttaca	cttactgage	attcactctg
76861		cgtcctaaga				
76921						
		actggagtta				
76981	aagcccaact	taccatgagg	gccacgacat	atgtctctac	ttacggattc	caccagtact
77041	cttgacagga	gcatttacct	cactatatta	taagccttga	tctacttttc	tatctccctg
77101	aagcataatc	agccataatc	tactaaccat	acctcaattt	tcattctcct	ttctattttt
77161	-	-				
		gggcagggga		-		
77221		gctcactaca	_			_
77281	ctcccgagta	gctgggatta	caggcacgta	ccaccatgcc	cagctaattt	ttgtattttt
77341	agtagagacg	ggctttcacc	atattaacca	agctagtctt	aaactcctga	cctcaggtga
77401		tcagcctccc				
77461		ctttattttt				
77521	atctgctcca	aactacattt	cccaacatcc	cttgtggcca	ggtgtggcca	tgggcctaag
77581	ctaagccaat	gggatatgag	tggaagctcc	ttaatgacaa	gctacttgcc	tttggatttc
77641	acctcctgct	tctcacatcc	tgaaatacag	acttaaggat	acaaaataga	ctaaaacctg
77701	-	tgatgacttt	-		-	-
				-	• • • •	
77761	_	aataaataaa	-	-		
77821		gagtctcgct				
77881	cggctcactg	caacctctgc	ctcctgggtt	caagcgattc	tcctgcctca	gcttcccaag
77941	tagctgggat	tacaagcatg	caccaccatq	cccggctaat	ttttgtattt	ttaagtagag
78001		actatgttgc				
78061		cccaaagtgc				
					-	-
78121	-	ttggggacct	_			-
78181	ctgaagtccc	acagcttgtc	ttattctatt	caacatctcc	agaacccttt	cttagggctt
78241	ggaacatagt	agttgctcag	taaatatttq	ttagctgaat	qaaaacacca	ttatgtaaag
78301	caggtagtag	cagggctaaa	caaactgatt	tactcaagct	atacaaatat	cccgtatcca
78361		atgtttcctg				
		-				
78421		atttgcaata		-		
78481	tgctgagaca	acagattttg	ggcttaatca	aaagttagct	gaggttactt	cttgtctgat
78541	aaaaataatg	ggctccattt	gagcacttac	tgtgtgccag	gttctgtact	aagcgcttca
78601	catacattat	ggcattcatt	ttcattcaat	tctcacaata	accetacaag	gtagaaaata
78661		cagatgaaca				
78721		tagtgacaaa	-	_		
78781	ctcttcataa	ccaatctgcc	actctgcttc	tcttcctgtg	tgacaagcca	atattcccca
78841	ctatggttat	aagtttcaag	ggctggacca	cgttttgtgc	ttatctcaat	agacgccaca
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78961		caccaggaga				
79021	-					
		ttttgccctc				
79081	cactcttctg	cccacgctgc	tgccgcccac	atcttggaca	gcatcccccg	gggccgcctt
79141	cctgcctgtc	tttgtgtaca	attcctgcca	ggcccggcag	ttctcctagc	taaagccggc
79201	aaggtccaga	cctgcccgtc	tggcctggta	atggtgtggt	ccacatttca	cctcccacct
79261	tcaccctaac	ttcatcctca	tggccattct	ttatccacaa	caactcotto	ctccccattc
79321		gcaaagcagt				
79381		gctcataaat				
79441	tggttgtgca	ctatgctttt	tgaaaactga	gttagctagg	tttaggctgg	gcacagtggc
79501	tcatgcctgt	aatctcagca	atttgggagg	ccaacctggg	tggatcacct	gaggtcagga
79561	gttcaagacc	agcctgacca	acatootoaa	accacatctt	tacttaaaaa	atacaaaatt
79621		ggtgtcatat				
79681		ccaggaggtg				
79741		gagagaaact				
79801	ggtcatataa	aaatgcaaat	ttcaaacttc	tctcagaaaa	tcaggagccg	tgacaacact
79861		ccccatgtgg				
79921		cccagttgac			_	
79981		ctcctacagg				
80041		agcagtgcct				
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80161		ccagctccca				
80221		ccccaatgcc				
80281		atcttttgtg				
80341		atctgtggtt	-			-
80401		tctcccctgg				
80461	tgtgtgtgtg	cgcacgcgca	tgtgtgtacc	catgtgaact	cgctcatgca	tgtgcttcta
			*			

#### FIGURE 3-V

```
80521
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80581
       gttagagaac cagaaagtat cagtcccact gccccatcta aaggggcagc agctgctgat
80641
       ggttgccata gtggaatgaa gattcagggt tgccagatct ttcaactttt caagaagcca
80701
       ggaatataac ttagaagagg ggagcaatgg tctctaaaga cctgtgctga gaaacaagtt
80761
       cctaagtgct tgggagaatt tatgaggacc aggtgctaga gaatgccggg aaatgaacgc
80821
       tcccctttga acgtcccatt ggtgaggtca gaactatgtc ctcaatccct catcagccta
80881
       tcccaggact ctgaagagga ccccagggtg cttggctggc tttgccttcc agcctaagaa
80941
       tgtctttgac taatatttt cttaatccct gtttgctctg tcctcaaaac aagccttttt
81001
       ctctttttct tatccatctt ctccatagag ccctcaggtt cttaactcac acggcactat
       ctggatcttt ccagtaagta ggttgccgtt tccatttctt tgattaaaca actctaacaa
81061
81121
       agaattcatt qagatqaaaa tgcttatcat gaagcaggta acatcctttt cctccccaaa
81181
       ccacaagcaa ttaacatata aatggcctgg caaagggact tctttgagag gtggcagatt
81241
       ataactactc ttgctcctac acggataaag cttttttta aagacaggaa agaacaattt
81301
       acaaatgaga aaatgtcaca gatggccaca aactaacttc ccgagggatg agtattttga
81361
       tgcagatact tcttcaagtg aaaaatgtac aatgtacaaa atgtccactc gaggatctgt
       tecteccegt gtgggtaate geettectae caegggeaae gggtaggeaa eegatatgee
81421
81481
       cagaaaggcg gccaatggga ggacagctcg cccagcctcc cgattggcca ggcccgccac
81541
       cagctggaac catggcgagc tttgaggaca gcagagccac ttgatgggat tctctctct
81601
       ttcaaagcat agagcaaaca tcaattaatc ctcaaaagac gctttcaaga agaacattat
81661
       cccttttgga gacgcagaag ctaagaggtg ccgcaggtag gtgaagggaa ggcaggaagt
       tgaagaggag aggagaaagt ggagcaccgg gctttcagcc ccagttctgg ttctcctqag
81721
81781
       agagtcaagt tgcaggagaa gaatgaacct gcagaagccg ggcagggaga ggtggtggag
81841
       aagccgctgc tcttgggtgc gcccctcaag gcttcccact gccccatccc ctaggagacc
81901
       acggagtgaa aaaagttgga ggcctaagta cagccgtgtg tacccagccg ggcaccagag
81961
       ttaaqacaac tqqacttqtq ctcaaaaacc cttctttagt aaaacaaccc gtaggagtct
82021
       gtgggaggag gaaaaattga agtctggatg caatttgcca cactgagtct gttctggtaa
82081
       ccqccccaa cacactcaca cccccttqcc tqaaatqqqq aqaqqqqtqq qatcqqtqtq
82141
       tgtaaacaga ggcactgccc tgcctggctg ctctttccat cttaggagaa ccaatccaga
82201
       actttctacg gctcacactc tgatcacagc ctgtcgccat gattggcaat aaacgtcaca
82261
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82321
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       teegtgttga etgeettaca caeegattte tacatggaat gtttttagee tgeattttaa
82381
82441
       cacttagaat aactttcttt qccacacact acatacatac tqtttqcatc aataaacaga
82501
       gcccgtgcca catgcaagtt ataggtttat tggagacatt taagtgttta tagaaaggac
82561
       ttttctaaag aatctgaatg ggagttctct caatttacca atagtcaaag aaataaagaa
82621
       aattacccta cagctgattt ttttttaatt aaactaccaa caactattct gccatagcct
82681
       tgcgtgtgtg tgtgtgtatg tgtgtgtgt tgtatgcatg cttgctgagg catagaaaat
82741
       atctggaagg atttacaaaa actccttagc tttggggaac agaatggaca gacagagaga
82801
       aaacctcttt ttttcttgtt ttatgttctt tactgtgcat tgtttacaat cagcatgttg
82861
       ttgttttttt ttttaagact agtcaagagc agcagtgaga aagggggaag gaaagaacaa
82921
       ggagttcaat ctgtaactgt gaacaatcaa ttgagataac tcactaccct cagactagcc
82981
       accatgttgc tttttaaatg tttcaaatca caaaatgaaa aagttactct aagatcatct
83041
       attttttccc caqqtqtqqt attttqtccc catqcctgtg caaagtaagc cagtagaatt
83101
       tagaaatagc ttgctgcctt ttttttttt tttttttt tgagatagaa gcttgctcta
83161
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83221
       tcaagtgatt ctcctgcctc agcctcccaa gtagctggta ctacaggcgc ggaccaccat
83281
       gcctggctaa tttttagtag agacggggtt tcactatgtt ggccaggatg gtctcaaact
       cctgaccttg tgatctgcct gccttaggct cccaaagacc tgggattaca ggcatgagcc
83341
83401
       accatgocog gootgotaco ttttttacat acacaaaata attgoaaact ttoactgoag
83461
       tactgccaac cctcatgtca ccatctacaa tgtaccacgt caagaaagga caatatcttc
83521
       aaacccactt accagaagaa aaggttgaag ctgtatttgg caggatactg acatacaaac
83581
       83641
       aaacaccaga aagtccagaa cacataaact catgaaacca accaatagac tggaatctct
83701
       cctgttatta aagtcatctt tttggccagg cgcagtgcct cacacctgta atcccagcac
83761
       tttgggaggc caagatgggc ggatcacttg gggtcaggag ttcgagacca gcctggccaa
83821
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83881
       tatagtccca gctactcttg aggctgaggc aggagaattg cttgaacccg ggaggtggag
83941
       gttgcagtga gccgagatca cactctactc tctctactct actccagcct gggtgataga
84001
       gtgaaatcct gtgtcaaaaa aaaagaaaaa acaaatcatc ttttattctc ttaaagaatq
84061
       aatttttcat qqqccatcaa cttcttcaqt catttaaqta tttqtttaqa qaatatttca
84121
       gttagaaact caggaaatgg agacctgacc tcaaagggcc ctttccagtc ataaagtaat
       tagaaataaa ataaaaacag gttgaagtga taagctgata agaaaatcca atttgtttcc
84181
84241
       aaaattgttc acttacagct gtttttctca tgaatatagc tatagttgtc atcagcaaat
84301
       cagtggcttg gaattcgaaa ggagtgaaaa tatacatcct gggtctcttg aactcctagt
```

#### FIGURE 3-W

```
84361
          gtttgccaga gctaggcagc aggatcaaat ggtcaatttc agcctggccc tgaaatcaaa
84421
          accetetaac agteacagaa gttetgeage tagteagtta ettaetgeee acaetteaet
84481
          cagcacaatc cttaaagtca ccagagggag cccaaatttg cgacaaacca gaatgctttc
          \verb|cttttagggc|| a \verb|tagttgtcc|| tctgattct|| a \verb|cttttgccc|| tctcctttcc|| a \verb|agacta|| a ttttgccc|| tctcctttcc|| tctgattct|| a cttttgccc|| tctcctttcc|| tctgattct|| tctgattct|
84541
84601
          tagaaacgaa gggaagtagg ctaagaaaat cctcaccttt aatattaata agacttqtqc
84661
          agtccccgga tgatcagagc ccagactaca taggacttga aagaaagaat gagactttga
84721
          tatggaatat gaaaaagtaa caggtaggag gggtggagag accaaactga gaggcctagg
84781
          gcccagcttc tgcagctctg tcactgactg gcccggtgac gatcacgcct atttactaag
          cagggatgac ctacgcttac ctgtctacat ttttatctgt gagatgaacg aaatgaaacc
84841
84901
          tccaatggtt tatttgccat gacaattttt aaaaatcagt aggaatgagg gaattaggaa
84961
          ttgagcccat gctatacctt cttttcaaaa gagatttcac atgtaccatc tcatctgtat
85021
          tcctggagag atagtagccc attatgagtg gctccaattt acagaaaaag taactaaggc
85081
          acagagtggt gatctaccca ggacagcatg gtctgtagaa gaagcattgg tctgtttagt
85141
          gcattgaaat gtattccaga gatattggtc tgtaaagacc ttcccagaat gtgtctagaa
85201
          ggttcaacca cctggtggaa gacatagaac gccttgtcat gccttcccca ttccagcctg
85261
          gagttetete catggtetea geetgettet atgaagetta gttttatagg gageetttta
85321
          accaaqccaa cctcagagtc ccactggcca aggggatggt gggggaggca aaggattcta
85381
          ctggggcagt atgtaaccca catataagtt ccatccaaag caacgcttcc aaacctagct
85441
          caccaggaca ggagaaaggt taccatcagg gtactcttag ctgagaactc atacctttcg
85501
          ggctttYatt ggcttgaggc atgagtgatc agcagagccc cacatcacaa tccctgtact
85561
          cagatataaa ttatattagt gggcagggaa tgtcaggaaa cttaggttgt agaatctaga
85621
          tcaacaactg cttaccgagg agctgggtga attgtaaaga aagaaagaaa caagtgttga
85681
          85741
          ctgtttcatg caatagcttt gggcagggca cttctttgga cttactccaa ctacacaagg
85801
          aggaggagga tgtctatggt tctttccacc ccagacacag tatcagtcac agccccacct
85861
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85921
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85981
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86041
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86101
          ggtacttctg gaaacaagcc atttctcagc ctgctctgtg aaggtccccc aaaccctaca
86161
          cagatctagg aagggaaact gcattccaag aatgcatggg ggctagaagg acccgctgga
86221
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86281
          aagaqcccat gccctggctt aagaqcatag ctgtttcctc ctccatctgc ccccattttc
86341
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86401
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86461
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86581
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86761
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86941
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87001
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87061
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87121
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87181
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87301 _tctcggctca ctgcaacctc cgcctcctgg gttcaagcaa ttctcctgcc tcagcctccc
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87421
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87481
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87541
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87601
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87781
          ccatctctac caaaaatatg aaacaaatta gccaggtatg gtggcataca catgtggtcc
87841
          catctactca ggaggctaag gtgggacgat tgcttgagcc tgggaggcgg aggttgcagt
87901
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87961
          aaaaaaaaaa aaaacccagg tgtgtccaac tccaggcttg tgcacttacc cactctgcta
88021
          tatggctaaa tcccacaggc tacagagaga gcagggaagt aggactcagg agaactgcct
88081
          ccagccccac aggcaccctg actagctgtg ggatcttagc aagtgatttc aacttgtggg
          88141
```

## FIGURE 3-X

88201	ttggtggact	gcctgagtgc	caggcactaa	gatagggggt	gggggaatgt	ataaacaaaa
88261	ctaaggcgtg	gtccttccct	ccaggagttt	acagtctagc	cctgccttat	gcaaaagcca
88321	aagagcctta	ggtgtccctt	caggtctaaa	atactactca	gagattcctt	ttgaacatgc
88381	aaagtatttc	tgacagcatt	catattcatc	ttctatttgt	tctgtgtgga	catttgcatg
88441	gagaggtatc	tgaaattatg	ttcgtccaat	ggatttgggg	tgataatttt	gctctcatct
88501	ttttactttt	atgtgttgct	tgaattttta	gtaacaaata	tacatcattt	ctataaaaac
88561	aaaggcattt	ttaaaatact	gctaaataac	actatatatg	ggtgtatatg	tatatgtata
88621	tatgcacaca	catacctata	tacacatata	tatttaaaca	gtaactggat	atttaataat
88681	actgtggaat	tattgttaac	tcagataaga	ttgtgactag	gtttccagaa	agaatcttta
88741	ttttttgcag	atacatactg	aaataattta	cagataaaat	gatgtctgag	atttatttca
88801	aagtaatctc	tagtgtgaga	gggtaggagt	aggctataga	tgagacaacg	ctggctctga
88861	gttgcaagtt	gtggaagcaa	tttgggtgct	aggtgatggg	tataagagtg	ttcacgatac
88921	tacataggtt	tgaaattttc	catactatac	agtaaaaaag	gaactccttt	caaggccaac
88981	agggaagcaa	catttcccca	aagctaagct	aagcacccag	ctggcagcat	ttctacctgg
89041	ggtttctacc	acccttggct	tcctctcttc	tttgactatc	tatcacagtt	taacttcatt
89101	ggttctctgc	agcttcctcc	cccccccc	ccacaccatt	cccccctaac	cttctggaat
89161	cacgtgttgt	atctatttgt	acattccagt	gcccaggcca	tccctcttcg	accttaccct
89221	ggcccagggg	acagagcggg	tgggcctgag	caatgctccc	acacacctcc	gctcaaagtc
89281	agctgtttgc	tgtagaggta	gaacagcttg	actactgggg	gcgagggtca	cagttcactc
89341	attcccccag	caaatacgga	gccagatgct	ggggactcag	cagtgaacaa	gaccaaattg
89401	ctaccttcac	agagttttca	tgctagagaa	ggagccaact	ataaatgtta	tctcccatcc
89461	ctcccagatt	tagggccagg	ggtatattca	ccaagacatt	cctgaatcac	ctgggatctt
89521	gtcccaaata	atttaaacct	gaaagacatg	atctagtgcc	aagagctaga	ataccaccca
89581	actacccatc	ccaatccagt	tccccattta	actgacaaaa	aaaaaaaaa	acagaaatgg
89641	, ,	, ,		aaacagtggc	2 22 22	,
89701	, , , ,		,,,	ttcagaattt	_	, , ,
89761	-			ttgcttgaat		
89821	catcttttgt	tttgttttgt	tttgtttttg	agacagggtc	tcaccctgtt	gcccaggcta
89881	gaatgcagtg	gcacaatcat				

#### FIGURE 4-A

#### >4:68275001-68368000

```
caaagaaata aaagtaaaaa aaaaattaaa aatgactcaa taaaagagaa atcacaatag
       aaaattataa agtataaaaa aagagccatc acacttcatt cttcctaaqt cctacaccaq
61
121
       agttgcttta aatgtgtgta tttaatggtt aaataagacc tgaaaaggga gttggcctaa
181
       aaatattttt accgtRaaac atcaatttct tcagagttaa tgagaattat atgctaacca
241
       taccaaaaac cttgattaga atttttagct tagatgtatt gattgatatt aaaaagggaa
301
       agttqagqcc acatacagaa agcaatggcg aaggacactg cctccaacag aaaatatgaa
       ccaaaaagca taatqqaaaa acatttacat qtaatatact aaataqatqt catqccaaca
361
421
       cagacacaca aggtgagaat accatgtgat aatgcaagta gattgaaatg ctaccggtgc
481
       aagccaagga atgccagaaa ttgccagtaa accaccagaa gttaggaata aggaaggatt
541
       ctctccctta caggttttca aagacatcac ggccttgaca acaccttgat ttcagacttc
601
       tagcctctag aactgagata ataaatttct gttgctttaa gtcactcatt ttgtggtatt
661
       ttgttacagc agttctagga aattaataca aacatgcctt ttaccacagt tctctcccat
721
       tggattattt aataataaat gatttaaaat tagtatttgg aaaagatgtt ttttaatgag
781
       tagacatatt aatcaggtct cttttgacac agaaatgttc tatatttcat tttcatattc
841
       ttgtcaaatt ataaaaataa tatcataaat atggacatcg ctacaagcta ttatgtacag
901
       tcactgaaaa atcagaaaaa acatgtgagt tagaaatgtt tatcaaatac aagtctacag
961
       aaaactgaat aaaattttta ttttaaaaca tcacaagtaa ttacaaagac aaatattcca
1021
       actatacaaa ctgtttttca catatacata tatacataca tatatttaag gttggttgat
1081
       ctttcatctt tttatctgag taaaaagaag aacactttcc tcattccgga gatttttgat
1141
       gttataatag ttacctaaaa gtaaagtgat aagaaaataa aaattattta catatgaatc
1201
       attetttttg attaagtatg tagteateae etgacagttg tagtatagga cacaagataa
1261
       aaacaattca cctaacctaa agtaacttat ttaattccat gaactacatc aacagctaac
1321
       catgacacgt gatccagatg aggettgaga gaacagaaat ataaatttca catcgttatg
1381
       aaaataaata cggagatgaa tcagtcgaga gtgtaagaaa agaaaatctc tttctgaaac
1441
       caatctttat taggtctaca gaactgctgt ggattcctct aaccagacat actcatatat
1501
       agatgaatat aaaaggtaca atgttaagta gaataaaatc tcaaaatttt atttatttac
1561
       ttattttttg ttttttttt ttcttttct ggagaacggg gtctcgctat attgcccagg
1621
       caggtetega acteetggge teaagetate etecegeete ttgeeteeet gagagetggg
1681
       attacaggca tgagccaccg cgcccggcca aaatctcaaa attttaaaaa ggcaaatgct
1741
       actcttaaat aaatqaqqta acaaataaca qcaaaagtqa aatacaqatq qaccqcaaqt
1801
       atcacatgtq acaggcttat tagaattgag tactatcact gtgactttct atatattaga
1861
       aattgagaaa gtattcacaa cagtgctgac atactaagga ttatgcaagt atggctatta
1921
       ttattgtctc cttccaacag aatgtaagct ctataaaagc agggattttt gcctgttttt
1981
       2041
       tttgtttttg agacagagtc ttgctctgtc acccaggctg gagtgcagta gtacaatcac
2101
       ageteacege aactttgaac teetgggete atgeagteet eetgteecag eeteeegaga
2161
       gctaggacta taggtgtgta tcaccgtgcc tggttaactt ttgcattttt tgtagacaca
2221
       gggtcttcct aggttgccca ggctggtccc gaactcctca cctcaagccc tcctcagcct
2281
       ctcaaaatqt tqqqattaca qqtqtqaqcc actqcacctq qcccataqta qtctcttaat
2341
       catacttgtt gaatgagtga atgaatgaca agtggattaa aatgcctatt tacaataact
2401
       tctqctqttc qataqctqat qaaqcatacc attcttqaaa caqtttaaaa taatqttcta
2461
       aaaacataat ttcttagaga taacatgggg taaataattt ttgttctcct ctgtaataca
2521
       acatatctgc tgactatata cataaatgta ttttttttt tgagaccgag tctcactctg
       tcccctaggc tggagtgcag tggtgcagtc tctggtcact gcaagctcca cctcccaggt
2581
2641
       tcatgccatt ctcctgcctc agcctccaga gtagctggga ccacaggtgt ccgccaccac
2701
       qcccaqctaa ttttttqta tttttaqtaq aqatqqqqtt tcactqtqtt aqccaqqatq
2761
       gtctcgatct cctgtccttg tgatttgccc actttggcct cctaaagtgc tggtattaca
2821
       ggcatgagcc accatgccca gccaatattt tcatattcag tagtaaacaa ctcttgttct
2881
       catgtatcaa aacactaatt ggttgggcac tgtggctcac acctgtaatc atagcacttt
2941
       ggaggccaag gtgggcagat cacttgaggt caggtgatct gttacggcta acatagcaaa
       atcccgcctc tactaaaaat acaaaaagta gccggatgtg gtggttcgtg cctgtagtcc
3001
3061
       cagetacted agagtetgag geacaagaat egettgaace caggaggtgg aggetacagt
3121
       gagctgagat cgtgccactg cactccagcc tgggtgacag agcaagactc tgtctcaaaa
3181
       acaaaaaaa accaccacaa aatgctaata cacttaccta atgatcaaat gaaaggaaaa
3241
       tatgtaccaa actgttctga catccatcag tcatatcaca cttcattttg accactgtgg
3301
       cttccatttc catagtgccc aaaaacaact atatacatgt tgtctaagtg aaataaattg
3361
       tcttacctqa aggaacataq aacqaatccc caqtacttaa tatataaqqt qtttcatqta
3421
       aagtacacaa aaggtcacca aagttaacat aaaaaacctg taaaaaataaa aataaaaatc
3481
       tcattcaaaa ctgaaccatg ataatacttc aaaggaacct taaaatgtag tgggaagaat
3541
       aacgactccc cacaaatgtg ctggctttaa tctccagaac ttgtaaatac attaaatttc
3601
       atggcaaaag ggaccttgag atggggagat tatctttgat aatgtaggta ggcccaatct
3661
       aatcacatta agcccttaaa aatagagtac tttctcctgc tggaagcaga gaagaaacga
```

#### FIGURE 4-B

```
3721
       aagagaagga acagtcacag aaatttgaag catgaaaggg acttgcaccg ttgctggcac
       taaagatgtg gggccatatg ccaagaaaca tgagttattt ctaaaatcta agaatgacac
3781
3841
       cctggccaac agccagtgag gaaatgggaa cctcagtccc acaaccactt aaaactgagt
3901
       tctgccaaca gtctgaacga gactggaagc agactggaag cagattcgtc cttacagcct
3961
       ccaqaaaqaa atacaaacct qtcaacatct tgattccagt cttgtaatac tctaaaqaqa
4021
       atacctggtc aagctcatgg ttctctctac ataactgtga gatagataat acaagagtat
4081
       tgtttcttgt tttttgagat ggagtctcac tctgtcatcc aggctggagt acagtgaggc
4141
       gatctcggct cactgcaagc tccgcctcca gggttcatgc cattctccag cctcagcctc
4201
       ctgagtagct gggactacag gcgcccgcca tcgcgcctgg ctaatttttt tttgtatttt
4261
       tagtagagac ggggtttcac catggtctcg atctcctgac ctggtgatct gcccgcctcg
       qcctcccaaa gtqctqqqat tacaqqtqtq aqccaccqcq cccaqcccaa qaqtattaaq
4321
4381
       ccattaaatt tgtgatacag tcatgcactg cctaacgatg tttcagtcaa cagcaaactg
4441
       cctacatgat agtggtccta taaggttaca atggcattta aaaaatcgta ttgcctagtg
4501
       acctcacage catcatgatg teccagtgaa aagcattact cacatgtttg tggtgatget
4561
       gatgtaaata aatctactga actgccagtc acataaaagt atagcacata caggaaaaag
4621
       tggaggatag aaagtaggac taacttgcag ctcccactca gatggacaga acagcatgtg
4681
       qaaactcaca tcatqaactt ttttqccaqa agaactactq cagqaacata ccaaqaaaac
4741
       tgaaagaatt cacagactct ttgaaagaaa tggcttgctg ctgcaaactc catgagacag
4801
       ctgaacaacc gtgagtgccc aaagtgtgaa aggggggaaa gtctgcctcc aaacacatcc
4861
       ttactgggga agctgaaaat ccaggtcatg agagaaggat ttaaccttac ctagagctga
4921
       aacgaattga gagagccaag ggaaatataa tagtagaagc agaggcagga agagccctgt
4981
       taaqtactcc tqqtttccaa qgaaacccaa qgaaqccatt tctqacttta tctcataggg
5041
       ttccttgggg atggctgcca gtggaactgg gggaggacca cagaaagaag gaaacttcca
5101
       gctgaacttt aaataatttt gatgaagcgt gaattttcct gggcagaatt gggggaaggg
5161
       cqaataqqaa qttcaqatac aaqccaqqqt aqqcaqcaaq qqqcaqqqcc tqaaaqccca
5221
       gcttgctttc tcagcaggga gacttatagc ctagcgcaaa atgtcagtcc tgctcactgg
5281
       ctgtctggat acaaacttgg tttggtgggg cacagtagga gtgagactgg cctagcctgg
5341
       ctgcttggga gctgggtgag gccagtctgc cagcttcccc cacttccttg gtgaccagta
5401
       tgatgcacta gagacagcca taatcccctt gggaacataa ctccagtggc ctgggaacca
5461
       tattttcatc ccctacagtg gtcacaaaaa gctcagccca aggagagtct gagctcagac
       acacctaatc aatcctacct gcacctgatg gtctttctct aactgccctg tagcctaaga
5521
5581
       caggagetat aaggeeceae ceateacetg agaaacetga ataettacee aggeaacetg
       tggcaacctt gtatcagcag atgctctctt gaaagtacca tctcctggct ggtggccagc
5641
5701
       cacctgctag cacaaccaat attaaagaaa accagcacac taaacaaaac tacaaccaaa
5761
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5821
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5881
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5941
       tgcagactgc ctctcaggaa gcataatccc taggggaagg aggagagcac cacatcaagg
6001
       gatcactcca tggaacaaat gaatctgaac tgcagtgctt gacctccaga tgtctcctct
6061
       gacacagtct acccaaatga gaagaaacca gaaaaacaat tctggtaatg tgataaagca
6121
       aggttcttta acacccccaa aagatcatac tcgctcccta gcaatagatc caaacaaata
       6181
6241
       accagagaaa gatgaaaacc aacttaaaga atttttttt aaaaatacag gattttgatg
6301
       aaaaaatctc gagagaaata gatagcataa ataaaaaaca atcacaactt ccagaaatga
6361
       aaggcatact tagagaaatg caaaatacat tagaaagttt taacaataga atcgaacgag
6421
       tagaagaact tcagagctca aaaacaaggc ttttgaatta acccaatcaa agacaaagag
6481
       aaaataaatt aaaaaaaaa atgaacaaag ccttgaagaa gtttgggatt atgttaaacg
6541
       accacacata agaataattg gtgttcctga ggaagaagag aaatctaaaa gtttggaaaa
       atttgaggaa ataatcaagg ataacttccc tggccttgct agcaatctag acatccaaat
6601
6661
       acaagaagtt caaagagcac ctggaaaatt catcgcaaaa agatcatcac ctagccacac
6721
       agtcattagg ttatctaaag tcaagacaaa gcaaagaatc ttaagagctg tgaggccaaa
6781
       gcatcaggca acctatttaa aaaaaaccta tcagattaac agcagatttc tcagcagaaa
6841
       ccctacaagc tagatgggac tgaggtccta tctttatcct ccttaaataa aacaattatc
6901
       agccaagaat tttagtatcc agcaaaacta agcttcataa atgaaagaaa gataaagtct
6961
       ttttcagaca aacaaatggc gagagaaatc cccactaaca agccagcact acaacaactg
7021
       ctaaaaggag ttctaaatct tgaaacaaaa actcaaaata tatcaaaata gaacctcctt
7081
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7141
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7201
       aatactaaca ttgaatataa atgacttcaa tgctccactt aaaagataca gaacggcaga
7261
       atgcataagc attcaccaac aaagtacctg ctgtcctcaa aagactcact taacacataa
7321
       ggattcacat aagcttaggg taaagaagta gtaaaagata ttccatgcaa atggatacca
7381
       aaagagagca ggagtagcta ttcttatatc agacaaaaca gactttaaag caacagcagt
       taaaaagaca aagaaggcca ttatgtaata agaaatggac tagtccaaca ggaaaatatc
7441
7501
       acaatcctaa atatatatgc acctaacacc agagctccca aatttataag acaattacta
```

### FIGURE 4-C

7561	ctaggcctaa	gaaacgagat	agacggcaac	acacttatac	tcaaggtctt	caatacccca
7621	ctgacagcag	taaacaggtc	atcaagacag	aaagtcaaca	aagaaacaat	ggatttaaac
7681	tatacactgg	aacaaatgga	cttaatagat	atttacagaa	cattctaccc	aaaaactgca
7741	gaatatacat	tctattcatc	agctcatgga	acattttcca	agatagactg	tatgagaggc
7801	cacaaatcaa	gtctcaataa	atttaagaaa	accaaaatta	tatcaagtac	tctctcagac
7861	cacagtcgaa	taaaattgga	agtcaactcc	aaaatgaacc	ctcaaaacca	agcaaataga
7921	tggaaattaa	ataatctcct	cctgaatgat	tgttgggtca	acaatgaaat	aaagatgaaa
7981	attgaaaaat	tctttgaact	gaacaataat	agtgacacaa	tctatcaaaa	cctctaagat
8041	acagcaaaag	cagtgctaac	aggaaagtta	atagcattaa	atgcctccat	caaaaagtct
8101	gaaagaacac	aaatacacaa	tctaaggtca	cacctcaagg	agctagagaa	ataaaaacaa
8161	acaaaaccta	aacccagcag	atgaagatca	ggccatttgg	tagaactaaa	tgaaaatata
8221	atcagaattg	atagaccatt	agtgaggtta	acaaagaaga	cagaagatcc	aaataaactg
8281	aattagaaac	aaaatgggag	atattacaac	caataccaca	gaaagacaaa	agatcattca
8341	aggctcgtat	gaacaccttt	atgtatacaa	accagaccta	gatgagacag	ataaattcct
8401	ggaaatatac	aactccctag	attaaaccag	gaagaaatag	aaactctgaa	aagaccaata
8461	acaagcaatg	agattgaaac	ggtaataaaa	gaattgtcaa	caacaaaaaa	agtccaggcc
8521	gggtatagtg	gctgatgcct	gtaatcccaa	cactttggga	ggctgaggca	ggtggattgc
8581	ctggggtcag	gagttcaaaa	ccaggctggc	caacatggca	aaaccccgtc	tctactaaaa
8641	atacaaaatt	agccagaatt	ggtggcgcat	gcctgtaatc	ccagctactt	gggaggctga
8701	ggcaggagaa	tcacttgaac	ctgggagatg	gaggttacag	tgagctgaaa	tcgcaccatt
8761	gcactccagc	ctgggcaaca	agagcaaaac	cccgtctcaa	aaaggaagaa	aagaaaaaga
8821	aaaaaaaat	tccaggacca	gatggattca	cagctgaatt	ctatcagaca	ttcaatttat
8881	ctatcagaaa	agagacaaat	tcttggaaat	acacaacctt	cttagattaa	accaagaaga
8941	aatagaaact	ctaaatagac	caataataag	cagcaagatt	gaaaaggtaa	taaaagaatt
9001	gtcaacaaca	acaaaaaagt	ccaggaccag	atggattcac	agctgaattc	tatcagacat
9061	tcaaagaaga	attggtacca	atccaactga	aatgattcca	aaagacagag	aggagtcaat
9121		ataaatgtga		_		_
9181	tcagctcaat	agatgcagaa	aaagcatttg	ccaaaatccg	gcattgcttt	atgattaaaa
9241	ccctcagcaa	aatcggcata	gaaggagcat	aactcaaggt	aataaaagcc	atttatgact
9301	aacctacagc	cagcatcata	ctgaacaagg	aaaagttgaa	aagtttctcc	tgagaactga
9361	aagaggacaa	ggatgcccac	tttcaccact	tctattcaac	atagtactgg	aagtcctggc
9421	cagagcaatc	ggacaaagga	aagaaataaa	gggtatccaa	actagaaaag	aggaagtcaa
9481		tttgccaatg	=		<del>-</del>	
9541		tctgataagt	-			-
9601	-	tctgctatac			-	-
9661		aatagccaca				
9721		agacgacata				
9781		gaaaatgaca				
9841		tcatcattct	<del>-</del>	-		
9901	_	ggcctgcata			=	
9961		ctgacttcaa		_		
10021		ataggcacat		, ,	, ,	-
10081	-	aactgatctt	-			
10141		aatggtgctg				
10201	=	caccttatac			<del>-</del>	
10261		tgaaaattct	-	-	_	
10321		tcatgaccaa	-	_		
10381		ctaaaaagct		_		
10441		aaacagacaa				
10501		tatccagaat				
10561		aaaagtgggc		_	-	-
10621		agcacacaaa	_			_
10681	_	aatgagatac				_
10741		ctagatgcag				
10801		cgctacagaa	_		-	-
10861	_	tactgggtac	_		_	-
10921		acatttatag		_		
10981	_	atcaacaagt		_	-	-
11041		aatgaaataa				
11101		aaagtaaccc				_
11161 11221		gctatgagga				
11221		gtgggaggag taggtgcacc				
11341		gctttgtctc	_			-
TTOAT	acacyyctig	guillyluc	CCCacccada	Lycoacticg	uactytayct	goodladicc

### FIGURE 4-D

```
ccacatgtca tgggagggac ctagtgggag gtagttgaat catgggggca gttaccctca
11461
       tgctgttctc atgagagtga gttctcacaa gatctgatgg ttttataagg ggcttttccc
11521
       cctcgcttgg caattctcct tgctgccacc atgtgaaaaa ggacatgttt gcttcccctt
11581
       ctgccataat tgtaagtttc ctgaggcacc cccagcccca cagaactgtg agtcaattaa
11641
       acctetttee ttteaaaatt acceagtett gggeagttet ttataggagt atgagaaggg
11701
       actaatacat cctgtaatcc cagctacttg agaggctgag gcacgagaat tgcttgaacc
11761
       cgggaggcag aggctgcagt gggctgatat cgtgccactc cagcctgggg acagtgggag
11821
       actctatctc aatgaaagaa aaaaaaaaat tatctatgta accaaacact acttgttctc
11881
       caaaacctat tgaagtaaaa aataaaatat aacacaattt tgtgtggtac aaaacacttg
11941
       qtaatqataa taaacaacta tqccactqqc ttatqtattt actatacttt tatccattac
12001
       12061
       aggcaggtcc ctcagtaagt attccagaag aaaccaatgt tattatagga gatgacagct
12121
       ccatgtgtgt tactattccc aaagacctta cagtgggaca agatgtggta gtgcaagaca
12181
       gtgataatga tcctaatctt gtgtagccca aggctgatgt gctgtttgtg tcttactttt
12241
       taacaaaaaa gttttaaaag ttaaaaaaaa aatagaaaaa agcttataga ataaggaaat
12301
       aaaatatttt tgtacagcca aacagtatgg ttgaatttta agtattacaa aagagtccaa
12361
       aagttaacaa caacaacaaa aggatataaa gtgaaaatgt tacagttaga tgaggtttat
12421
       tactgaagaa agaaaaattc tgtttatgaa tttagtgtgg cctaagtcta cagtatttat
12481
       aaagtctaca gtagtgtaca gtaatgtcct aggtcttcac atttactcag cacttactca
12541
       ctgactcatc caggaccact tccagtcctg aaagctccat tcatggtaag tgccctataa
       gggtaacatt tatcttttat gccacatttt tattgtactt tttctacatt tagatacaca
12601
       aatacaactg tctacagtat tcagcacaga aacacgctgt acaggtttga agtacagaag
12661
12721
       caacagggta tcatcctata tagcctaggt tcgtagtagg ctatatcatc ttatgacgtt
12781
       cataagacaa aatagcttaa tgactcattt ctcagtaaca catagctgta atttgttaga
12841
       gcagcaactg aaaactaata cagatgtccc caacccccag gacagggacc gctactggca
12901
       gtggcctgtt aggaatgggc tcacacagca ggaggtaagc agcacgccag tgagtgttac
12961
       tgcctgagct ctgcctcctg ttagatcagc agcagcatta gattctctca ggcacatgaa
       ccctattgtg aaatgtgcat gtgagaaatc taggttgtgt gctccttatg aaaatctaat
13021
13081
       qccaactccc actqccacca ccaatttttq tqqaaqaaaa attqtctttc acaaaccaqt
13141
       ccttggtgcc aaaaaggatg gggaccattg taatacagga agagatttct tttatttttc
13201
       cttattttgt ttttccttat tacttactgg cttatgaaaa ttctacagcc actgtaaaga
13261
       ttatcaccta cactataaag attatcaccg cactgggcgc agtggctcac Rcctgtaatc
13321
       ccagcacttt gggaggccta ggtgggcgga tcacgaggtc aggagatcga gaccatcctg
13381
       gctaacacaq tqaaacccca tctctatqaa aaatacaaaa aattaqccaq qcqtqqtqqc
13441
       gggcacctat agtcccagtt actcgggagg ctgaggcagg agaatggcgt gaacctggga
13501
       ggtggagctt gcagtgagct gaggtcacgc cactgcactc cagcctgggt gacagagcga
13561
       gactccaact caaaaagatt atcacctaca ctaaaaaaat acctaggctt tatgtatgcc
13621
       tctttaaagg tcacatgctt aggacaacaa actactcaat ctgattgaag aatcaaagaa
13681
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### FIGURE 4-E

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### FIGURE 4-F

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19441	caataacctg	gtagagtaca	gcaatgcttt	cagttaagac	actaaacaaa	actccatact
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19621	cctttcttt	tttaggaatt	aactaactag	ttttattatt	attattattg	agacagggtc
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19741	ctcccagact	caagcaattc	tcctgtccca	gcctcccaag	cagctgggac	tacaagcacc
19801		cccagctacc				
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### FIGURE 4-G

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23161					aatctttaca	
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23461					tgcataattt	_
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23581	acagaaactt	aaggtatttt	tctcaatgaa	aatattaaaa	aagaaaaata	ttcttaccta
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26701						

### FIGURE 4-H

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28561
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28621
       gagacacaag gtgagcacat gctattgaaa aaaaaaatgg tgccaataag gcttactcaa
28681
       caaagggttg ccacaaacct tcaatttgtg aaaaatgcag tatctccaaa atgcagtgac
28741
       acaaagcaca ataaaacaag gtatgcctgt ataaatataa atatagaaat agatatagat
28801
       gcctgtattg tatatggtgt gtacatatgt gtatgtgtgt gtgtatatat atatctattt
28861
       cctatctctg tacactgaga aagactagaa gcaatggtat cccaaacaag gatcacgtca
28921
       agtgcccaaa tcttggtttc taaatgccat cttccactaa aaagaaccag gtttcctgga
28981
       gcagtaattg atcccagagc tggggcagga aaaagactgg aacatcttat gccaaaaaaac
29041
       aaaqacagta ttcacagaat catgacaaaa gcacacagag accagctgaa agaaaatcSa
29101
       gtgaccaaat ctatcacaat tcaagtatca taataaatgg tcaagatttt acaaccccat
29161
       ggcataaaat agtagtagtc catactgata taaataaaaa gaatcatgaa taaaataatt
29221
       ggcatgcggg agaaaaactg gcaactaatt aatgcggaag gaattaaaga aacagaaaat
       agaaaataat gtggtaccat cattagtggc tgataattca agtgggagtc ttgaatgtat
29281
29341
       gttaaggttg gtgaatggag gtttgacaag aaacaggcta ttaagagtat cagaatatca
29401
       ctccacaata atattatca attataagag aaaagcagtg tctttacagt agagaaacct
29461
       ggcagacaat aacatgaaca ggtaatcagg attgatatca tgtcagcagg gcatggtggc
29521
       tcacacctqt aatcccaqcq ctttqqqaqa ctqaqqtqtq caqatcactt qaqqtccaqa
29581
       gtttgagacc agcctggcca acaaggtgaa agcctgtctc tactaaaaaat acaaaaatta
29641
       gcccagcatg gtagcatgtg cctgtaatca cagctactca ggaggctgag gcatgagaat
29701
       tgcttgaacc tgggaggtgg aggttacaat gagctgagat cacacaactg cactccagcc
29761
       tgggtgagag agcaagactc catctcaaac aaacaaacaa acaaaaaaca aaagcatcat
29821
       gtagatgggt gaacgttgtg tgcctcctgt gtgatgcaca aattacatcc cctaactcct
29881
       aaccctatag catcatttct gtagtattcc tgtcaaatat gaatggcaca catttgatca
       tgagttaagt taggaaaaaa actaagaaac tgttccatgt tgaaggaaac taagggacat
29941
30001
       qqcaqctaaa tqcaqtcqac qatccaqqac tqqatcttqa accaqqaqqa aqaaqaaact
30061
       ctgagatcca ggactggatc ctgagctaga agggaaaagg aactgctagt gaaatctgaa
30121
       tggagtctgt gaatgaacct gtgttgtatt aatgctgatt tccttatttg tatggttcga
30181
       gggtagttat atccttgtct tgctgaaata cattatgggg catttaaggg aaataatata
30241
       tcatgtctac aattccctct caaatagttc agaaaaaaga tgtatgataa tagacgtgta
       tttattagag gaggcaggga gggagatgga aaaatgttgt aaaatgtgga caattgtgaa
30301
30361
       atcttgatga aggggatatg ggatctctgt ataagactga aattatttca aaataaatta
30421
       ttttttaagt gactaacaca agggacaact cctaaatttc aaagattaaa ggatcctagt
30481
       aagtatggag atggaagaaa acaggttatc tacaaaggaa agaagaaata aggctgcctt
30541
       caaatttcta ttcataaqca ttaactctca tqaaqcaaaa tagcaatacg gtqataqttt
```

### FIGURE 4-I

30601	aaagaaaaaa	agatcatgac	tcaagattat	gttctctatt	tagctggtgg	ttcattgtgt
30661			ctgagtcctt			
	_					
30721	tacaaagaag	taacaagtat	atctgttgac	aataagtgta	tatatattaa	acaatttatt
30781	aaaggaaaaa	gtactgacac	agcgagtcaa	aaacaattca	atcatatact	gtttcttagc
30841			aagttaaata		-	-
			_	_	-	
30901	gaaagcagaa	gtcacaatac	taatattaga	caaaacaaac	tacaaagtaa	aaagcattta
30961	acacaacgaa	gcagataaat	ttgaccaaag	caggtacact	ccatatgaag	acttatataa
31021	_		_	5 5		, , ,
	-		tacataacaa	-		
31081	ttgcagtggg	aacactttac	ttcaactcta	gcagtcctta	atagatctca	aataaaaaga
31141	atacataggt	tgagaacatc	aagcttagta	totccaaatc	taacRtcctg	ttcttttcct
31201			gtagtcccca	-	_	
	-		-	2 2 2	-	_
31261	gageteggge	caaaaacctt	caagttctct	ctaacgcctc	tctttttctt	atacaccacg
31321	tatcgtccat	cagaaaatcc	tgttgacttt	accctcaaaa	atacctaaaa	atcctcctcc
31381	-	-	taccacattg			
	-	_	-	-		
31441			tctccttgct			
31501	cagtcaactc	ctaacacagg	agctgcagtg	attctgttaa	tacaggtcaa	gtcatgtctc
31561			aatggcttcc			
	-			-	-	-
31621			ctgttgcctc			
31681	ctctcttcct	ctgctctaac	cctctggcct	tcttggtgtt	cctcgatcaa	gacagactct
31741	tgaccacata	agaacttttg	cccttcatct	tecetetace	tggtacacta	tttacccaga
			tcatctcttc			
31801		, , ,		_	_	_
31861	tgaggacttc	tctgcccatc	tacctaaaaa	tgtaaacttc	atttcccacc	ctaaaagcca
31921	tgctttattt	ctctactctc	aacacccaac	aaatcataaa	tttgttatct	ttttatattq
31981	-		agaaattaag		-	_
	-	-	-		-	
32041	-		ttaaaataat	-		
32101	agaattccat	aaatattaaa	agtatattca	aaaaaatata	tccacttatg	ttatcaacaa
32161	aataactgga	tatatatctt	taaatccata	tctqtataca	aattattccc	tttttcaagc
32221			aactaagcat	-		_
			-	_		
32281	actgaattca	aacaataaat	aaaatagact	aagttttcta	gaacaataaa	atgaaaccag
32341	aaaatactaa	aagaacaaaa	taaaacacaa	cttcttagaa	taacagcaaa	aattggctat
32401	ttaacataca	cctgatatta	aactaagcaa	agaatatgta	ttcatcttta	tatcagetta
		-	-	-		_
32461			ttttacagat		-	_
32521	ttcttactca	agataatata	gtgatgcttc	ccgatcagtg	gtgaatgggg	caaaaaaaaa
32581	aaaaaaaaq	aacgtagcta	gtaagtagta	gagctagaac	caatcccagg	tccatgaccc
32641	_		aatgtactct			-
		-	-	-		-
32701	tacaatttag	agtatactac	aataacacta	catagcaaaa	tctatcaaat	taagccaaaa
32761	ctatactgag	ggaaattgaa	tgctgcttct	ttaccaaaga	aaaagcagaa	aaacacagaa
32821	agcattcaag	ttaaaagaga	aaatacaata	aatctaatga	саааааааа	attaaaaagt
32881			gaaaaaaaag	_		_
	-		-	-	_	-
32941	taggagcatg	aaaaaattat	aaaattctct	attaagaggc	atctttaaac	ttcagtatga
33001	aaattttcaa	gtactgaagg	ccgggagtgg	tggctcacac	ctgtaatccc	agcactttga
33061			acaaggtcag		-	-
33121			agacaaaaaa			
33181	atcccagcta	ctcaggagtc	taaggcagga	gaattgcctg	aacccaggag	gtggaggatg
33241	cagtgagctg	agattgcacc	actgcactcc	agcctgggag	acagagcgag	actccatctc
33301			ttttcaagta			_
		,				
33361			ttcagtaatc			
33421	acccttatta	gcttaacaat	tttaaatact	ggagtagaca	ccttaagtgc	caatatttca
33481	ttatqttcta	cttaaaaaaac	tgtcactcat	tttctttcta	totcacttag	gtacagggtc
33541			gtcttaagag			
						_
33601	gacaatgtaa	acaaaacata	gcactcctta	ctccatattc	ataatgccat	aaaaatcaag
33661	acagaaaaaa	aacaatagtt	tacctgaact	tccatgaact	tcctcatcat	ccacatcatt
33721	ctttccagac	attaaataat	tattattgag	cctagaaggt	ccacttaaga	aaaaaaaaaa
33781		-	ataatacata	_	-	_
33841	ttctcctaaa	actgccataa	gtctttctta	taaaaccaat	agtgatgtta	caagtcatca
33901	aaaatatata	gtcatccctc	agtatttgtg	ggggattgat	tccaggatcc	actgtggata
33961			agtcccttat			
34021			tttaaatcat			
34081	gtaaatgcta	tgtaaatagt	tgttatactg	tatttttatt	tgtattattt	taaatgtcat
34141			tatattttat			
34201			acagatatgg			
34261			aactgacagt			
34321	acagatcaga	gtaacagact	tagtaaattc	aaatgataac	atcctgtggt	gaaaatcaaa
34381	ttataaaaaa	agaaagaaat	catcatattt	taattaaaaa	aaaatatagc	caaaaaccaa

### FIGURE 4-J

34441	tggaatttaa	aatgtggtcc	agaaattgtc	agagatgatt	cagcctctcc	tagtcctaaa
34501	tctctttcta	cctattatga	acccaggata	agcctagtca	taacctcaca	aatagtaaag
34561	aaatottago	catecettaa	aagtctgaga	atttgctaaa	atttaccctt	tattcatttt
34621	-		agatataatt	-		
	, ,	_	_	, , ,,		-
34681			atgtccaaat			
34741	_		gaatgtagtg			
34801	aataaagtag	aaatgacggt	gtacaatgtc	aaagactaag	tcattaaaag	acactgtgat
34861	atccatcata	gtcacacctt	ctcttggagc	atttgctttg	tgggaagcca	gttgccatat
34921		_	aYggttaaga			
34981			cagcgatgtg			
		_				
35041		2.2.2	aaaaccagaa		-	
35101	gccaaaacta	gctagctaag	cctcccagat	tgctgaScca	tagaaactat	gaaacaataa
35161	gtgtttttaa	gcttttaaca	aaattaaaat	aaagttcttg	ggtaatctgt	tatacagcaa
35221	tgggtaacta	atatatacaa	ctattatcct	tacaatacac	gcataccttt	cctctaaaac
35281	tgaagtctta	tgctctccag	aatccaagtt	tgactctgtt	ggtatattac	atgtatatcc
35341			gaacattctg			
35401			aatgataaat			
35461			cacaggtggg			
35521			aggttctgag			
35581	ttctaggacc	taccaagagt	cccaatttga	aaaattctga	tgagagaaat	ggagaagaca
35641	cctgccaagg	aaggtggtga	aagggacata	aggagacctt	atctataagc	agcttgatat
35701	atattacagt	taatctatca	tggtttactg	gagaatccat	aaacaactaa	aattggcttc
35761			tactgagggg			
35821	0+0+++00+0	attaatttaa	tccaaatata	tacaaaaaaa	atacactett	catagtaset
35881	~		gtatcctcct		-	-
35941			taggaacaac			
36001	aaatggacaa	actcctagaa	agacacaaat	tatcaaaatt	gattcaagag	gaaacagtct
36061	caaaatacca	tgaatcagta	atcaaaaaca	aactacccat	atagaaaagc	tcaggcacag
36121	gtggcttcac	tgcttttacc	aaacattcaa	agagaattac	gacaaattat	tcacaaaccg
36181			atacttccca			
36241			aacagaagca			
		_				
36301			aacacaataa			
36361	ctgaaaaagt	gaaacagaat	gggtatggga	tttctttatg	cactataatg	atatacgcta
36421	atatattta	ggacacactg	tcatttattt	cagtatatcc	tcagcacctt	actgattcca
36481	acacaaagta	tgtattacct	caataggttg	ttggaactaa	taagaattca	ttaaaagYat
36541	ctaqcaaata	tttggcacat	agtatgaact	caaaaaatgt	taactattat	catcctaaga
36601	-		tcctaactat	_		
36661		-	aaaaaagatt	-		
36721	_		ctctactttg		_	
36781			aggcaacaaa			
36841			ccacacctgt			
36901	aggattatct	gacccagaag	tttgaggtta	cagtgggcta	tgatcacgcc	actgcactcc
36961	agcctgggaa	acagaggaag	actctgtctc	ttaaaaaaaa	aaaaaaaaa	aaaaagttta
37021	actcttggat	gacaataata	tcttattaaa	tttaacagtc	ataattccag	gtgctatgta
37081			aggaaacaag			
37141			atttaatacc			
37201						
			atgactaaat			
37261			aacagacatt			
37321			tccaatggct			
37381	gaccaacgat	acctccagaa	ccttcagcat	ttaaaaactt	ctgtactctt	tggttgcctt
37441	tagttgctgt	cttctgcctt	ttaagtggaa	tagtttttt	cctaatattc	ttagatgact
37501	gatttgttt	cttagtagat	tttcggctac	tattqtqatq	cattggtaat	tcatttctta
37561	ctgaagaatt	nctataaaca	ggacctgaag	gattcaatga	taacctaaag	ttagtaagtt
37621			ctgaaatacc			
			-	-	-	
37681			acacacacac			
37741			taaattcttt	_	-	_
37801			ctgtcacagg			
37861	tgcccttctg	gccatcctta	atatctgata	ttccccaagg	tgacagcttc	agcttttcac
37921			gacttatcta			
37981			ctgctctccc			
38041			acctattcta	_	_	
38101			ccacaatcac			
				-		
38161	-		gctctccctc			
38221	tatctggatt	attaaaacag	tctctttact	aatctccccc	tccctagcct	igititicit

### FIGURE 4-K

```
38281
       caatccattc cctacactgc tgcaagaatc acctttggaa aacaaaaact ggatcattac
       aactctgctt aattaaagta ttttagttat tatctatagc ttcaggatga agtccaaata
38341
38401
       cttcaacatc aattcatatc tacatctaga tttgcttatt tcataaacca caattcccaa
38461
       aacccccctc caaacaaaca aaccaaaaaa agccatcagt aatgaacaat ctacagtttc
38521
       tctaaagcac tggttgtcca aaggcagtct ctagaccagc aagatcagca ttatctggga
       atttqaaatq taaattatca tqcctcacct caqaccccaq tqaatcaaaq actttqcaqa
38581
38641
       gcagggccca gtaacctgtg ccttaatagg cccccagac aattctaaag cacactaaat
38701
       taaagaaaga aaagatcaag ctctctgctc cagatctctg cacaagctac ttctacttaa
38761
       aacattccat aacttcctcc ttactccact caatcactta gctaactcct agttcatcct
38821
       tcaqqaaRct ttccctaatt tccaagtctt aggtagcttg ctatcacaca tacgactgtt
38881
       tacttatctc tacttctctc ctccagcaga ctaacaactc cttgacctca agtaattgat
38941
       tggtatttta tctatgtata ttcccaatgc ctaatgacag gggcaggact atggtgaagc
39001
       aagagtagcc tcagctggaa aattcaagaa ggtactcatt ttcaggtctg tgcaagtaca
39061
       qaqcccqaac tgatacaatc ctgtgactga ctgccttaaa tttttcaccc tagtgtctca
39121
       ttgtcttacc ctagtcctgg tcctacttta cctcattcct gccccatggc aagtactcca
39181
       tatacatttc ttcatatata tggaagggca acagtgtcac acgtacgaca ggcaggctgg
39241
       qqqcaqqtca aqttqttctt cttaacttca qacttcaqtt tcttcttcca tcaqatqaqa
39301
       gtttagacta tatgatatat aaagattcct ccactttttc gactcccagc ttgatcaaaa
39361
       atccaacatc tatttcagga ctcttaaata agtgtttttt gatagtttca gagatctagc
39421
       acatttatcc aagttctgta agaatttatt tacccatctg tttatgtaYt catctgccac
39481
       atagtactta gcatttcagg caacctgggg cagaaaagtg agttccccaa agcagtaaca
39541
       qtattattta acacttcaat actaacatat qccacctact atqctaattq catttaaacc
39601
       ttataaaaac tcaatgaggt aatcatgtta cagaatgaga aactaaacaa agcaatctac
39661
       tcaaagtgga agagtgatac tttgaactca gatctcactc caaaatccaa aggctgcaac
39721
       aaaataaata cttgctgcta tccatcaaga atctcaatga tttaataatt catagcaata
39781
       aggeeteaca tatacaatge catagttgta ctaatcatte acttattaat etaaatgeee
39841
       caaagtcaat agtatttgtg tatgtgaatg ctaccttatg atccaccaat cttttcagga
39901
       tcactttctt taaaaaggga caattctccc aaaacaataa atgtttcata ttgtgcagaa
39961
       aaaagttagc aaagcaggtc tgagtatact acccttaaaa gggcctgctt tcaaagttag
40021
       ccctgtaaac ttaaatttca ggattgttcc cgtcatttcc taattggcaa acgtggtgtt
40081
       gtgggcctaa actgcttatg caaaaaatat ggtttaggca aatattgcct tccttcaggg
40141
       agtctggaat tgtagtactt gctagataga gagtacctat gtgaccaccc ccaggaaaga
40201
       tcttgggcac taagtctcta gtgagcttcc ctRatagaca ttttgcctat ttgtcacaac
40261
       tcattgctag aggaattaag cagctcctgt gggaatccac tgggaaagga ctctttaagc
40321
       ttctgctgat ttcctccaga cttaacccat gcactttttt tctactgaat ttgcactgca
40381
       tcctttcact gtaatgaatc acagccatga gtacaactat atgcccagtc ctcctagcaa
40441
       attaccaaat ctqaqqqtaq tcttqqqaac cWccaacaca aqtaatttac ttttttatqt
40501
       gtaataaact ataatctttt agattataaa ctccttggtg gcagaacctc atattatcaa
40561
       tctttgtatc cctcacagcc aggacattaa aatagctgga ttatttatat tgcctttccc
40621
       aactagaatg caagctccat gaaagcaggg atttctggtt tggggttttg ttttcccaca
40681
       gctattatcc ctattcctaa aatactgtat atattaacgc ttcaaggaat atctttacca
40741
       ttgatttaat attccttttg atgacccaat ttaacttggt cctcatgata ttctctatat
40801
       agaaatataa aatcaaacat aatgcccctt acagaatgat tttgtctatg aacaaacaca
40861
       atttaaataa aaatacttac tctcctctga ttttaccacc caccaatcag atggacgcct
40921
       ggaaattett egaetttteg tgacagttga agteaettet teaggtacaa gtttgttett
40981
       ggactcactg gaaaagcgct tctttttaga ttcttcctta tcttttctag tgctactttt
41041
       cttgcttcct aaaataaaga aaaccataaa accaattcac aatctactaa aagagttttc
41101
       agaaaaccac aagattataa aaaaaccgtc aattacagga acttcttaaa tttatcctgt
41161
       ggccttttca tctccatttt taaaagtcac atgttctctt tctgtcaatt atatgtgctg
41221
       ctgaagtaag cactaacttc ctattaaatg caaattttca cactgcttga taactcttat
41281
       atactcctca gccaaaaaaa taagtatctt ctgaaactga aaaaaaaata cagttccttc
41341
       ctataacgtc ctaagtaaaa gtaggcaatt actgctttcc tgttttgaaa taatgatttt
41401
       tttcaactta agaagaggag atttaaagtg tgattaaatt ataaactctg aaatagaggc
41461
       attatcttgg atcatccagg ttgacccaat ctaattatgt ttcttttaaa agctgtggtc
41521
       aqaqaqatqa qatqatqqaa qaaqaqqcaa qataaattca caacatgaga aggctggtat
41581
       tgctagtttt gcagatggtg gaggaggacc atgagtcaag gaatataggt agtttcaaga
41641
       gggtggaaaa ggcaaagaaa cagacttcct cccagagcYa cYagaaagaa agaaaacccc
41701
       accaatacct tgattttatc ccagtgagac atctgaccca cagaactgta agataatcaa
41761
       tgtttgttgt tttaagccaa taagtgtgta gtaacttgtc atatgacagc aatagaaaat
41821
       taatacaact gatatggtaa ttaatgagca ttatattcac taaccaatct agatacagaa
41881
       tatatgtaaa aattagtgtg tagaatatag caggtactca gaaaatgttt aatatttaca
41941
       attatagagc gcatctttca agtatacttc cttcatatgt cttttcctaa gaaattatgg
42001
       ataaatcaaa attttgtatc cttcctttta atcctatqca tgtatgtata ttatctatta
42061
       ttctacagaa cccaccagaa tgatcttgtt aacagtagaa ataatgggtt agtaattttt
```

### FIGURE 4-L

```
42121
       qtqattacaq tgcctaatgc agtgtatgqc attcaacaac tgttaqacac atgagtgaat
42181
       gatggaagag aatggacttt tatctctata aaaaatagtc ccacggtacc ctgggatttt
       ttttaacatt tttattttct aaataattta tcattctgtc ttattcatct tccgatacta
42241
42301
       acttgtttac tagccttttc ttttcacttt gccctctata tatactgcca tctcacaaga
       taaacaaaaa ctatatgagt tagaattaaa ttatatataa aataaaaagg ttctagaaaa
42361
42421
       qaacctataq qcttttcaqq ctctttqttc atttaqqttt actttqccta cttqccaaaq
       ctaagttagg atattaaaaa acataaaatg ggtagaataa tgctcatggt tatatttaat
42481
42541
       ataaacactt acccacaggt ggcatctgtt ttttggaaac acaatcattt cccatctctt
42601
       catgetette catatteetg tetgaatte tttgaaatte gtettgggta atatgtgatg
42661
       tatgtatgtt ttcatcttta gactgtccca catcaagctg ttcttcagct ggtttagcca
       tgaattttct tctctgtttt tgttttatag tccttttgct tctagatggt ttttctgcat
42721
       tcttqqaata catttcatat tttqtaqatc tataattatt tactqtttca Yctatcaaaq
42781
42841
       cataacttgt atccagtact gttttatcag agggctgaga tgtctctact gggtgaggtt
42901
       tatgggaatg tttgtcattt gccaaagtct taggtaatat attatgatgc ttttctcttg
42961
       actttctacc ttgaaRgagt gcagtgctct cagccgggga tattgtgcgt tgtttcagag
43021
       accetgeett tettggtatt gtaateeaag atetaetgge aaaaetttga teegaeteat
43081
       caattataaa ttcatcctct atcaacttcg tatcatcggg aggacacgaa tgaggtggag
43141
       cagttgccgc atgcctaaca atgggactga aacagggtga tacttttaac agttcaaaaa
43201
       aataaagctt ttatatttgt ttagtaaaga aaataatcta ggaaataaaa tctaaatttc
43261
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43441
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43501
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43681
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43861
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       atacacagac ggttgaatga atgtaaaaat tactaatatt actataggac tgtaaattgt
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45901
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### FIGURE 4-M

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46141
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46261
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46621
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48901
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48961
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49021
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49681
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49741
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### FIGURE 4-N

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	, ,,	gtgatgtaaa				
49921						
49981	aggatgacta	ttatttataa	aaacaaaaga	taacaactgt	tgatgtagaa	aaaaatggaa
50041	cctttgtgca	tgcactgcta	gtgtgaatgt	agaatgacag	tcactatgaa	aagtgcacag
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		aaaacttaaa				
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50281		atactacaac		-	_	
	-					-
50341		taaattttct				
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50461	gaaagaagtt	ctatggattc	atggtggtga	tagcctcaca	acaatgtgaa	tgtacttaat
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50701	agtagtattt	aagttgggaa	ttcattattt	cagttaccat	gtctgcataa	tataacttct
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		-	_			-
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50881	cttgtttaca	catatttgac	acctggtctt	gactgcaggc	tgggagtctt	ttctctccat
50941	aatggctact	ttgggcttct	tcacagcata	ttatctagat	tccaagggca	actogagaga
			_			
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51061	catatagcct	tttatgacct	aatcatggaa	atcacatgta	ttacatatgc	cacattcaat
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51181		atcaaaggcc				
51241		ggtggatcac				
51301	aaaccccatc	tctactaaaa	atacaaaaat	tatgtgggcg	cagtggtgtg	tgcctataat
51361	cccaqctact	tgggaggctg	agacaggaga	atcacttgaa	ctcaggaggc	ggaggttgca
51421		attgtgccat				
51481		aattaaaagg				
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51601	gctaacatga	tgaagccccg	tctctactaa	aaacacaaaa	aattagatga	acataataac
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		_				
51721		gcagtgagcc				
51781	gactctctca	aaaaaacaaa	aaatgaatga	cgtctgtaag	actgaaggca	aaagaaactg
51841	tacataagca	ctattctcta	gttgataaaa	ctgttttcca	caggatatga	gtcaacaatt
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	_	_	-	_		
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52081		acagatagtt				
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53161		agagaaaaaa				
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53281		agaactagaa				
53341		aatcctaagc			_	
		_	_			
53401		taaggctaca	-			-
53461	tagaccaatg	gaacagaaca	gaggcctcag	aaataacacc	acacatctac	aaccgtttgc
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### FIGURE 4-0

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53761	ttaaaacacc	aaaagcaatt	Scaacaaaag	ccaaaactga	caaatgggat	ctaattaaat
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	<b>J J</b>	,	222			
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57061		tttcagtttg				
57121	atagcagaac	tttgttttta	atgactgact	aatattacat	tctgtgtata	aatcacatgc
57181	tatttatcca	ttcatctgtt	gacggacact	taacttattt	ataccttttq	agtattgtga
57241	_	tacgaatatt	_		-	
57301	ttgggtatat	acctaggagg	gaagtattgg	gtcatatggt	agttctatgt	ttaacttttt
57361		caaattgttt				
57421	cargagggtt	ttaatttatc	cycattica	acacttattt		giillaaala

### FIGURE 4-P

```
57481
       atagctaacc tagtgagtgt aaagtggtat ctccctaggg tcttgatttg cattctctaa
57541
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57601
       agaaaagtct atacacagaa tgtaaagtcc tttgctcatc ttttatttgg gttgtttggt
57661
       ttttctgttg ttgagctgta gaagttcttt atatattctg attataaatc tctatcatcc
57721
       ttttcaggta aattatttgc aaatattttc gcctagtctg gttgcccttt cacactcttg
57781
       acaqtqtcct tcaqatttat ttatttattt atttatttt qqaqacqqqq tctcactctq
57841
       tegeceagge tggagtgeag tggegeaate tteggeteae tgeaacetee ageteetagg
57901
       ctcaagcgat tctcctgact cagcctcccg agtacctggg ataacaggta cttgccacca
57961
       cgcctggcaa attttggtat ttttagWaga gatggagttt taccatgttg gccatgctgg
58021
       totcaaactc ctgacctcaa ctgatccacc tgcctcagcc tcccaaagtg ctgggattac
58081
       aggeatgage aaccacteet ggeteeagat taacattttt ataagaaaga aacataaett
58141
       attttgtaaa aaacctaaat aacataaaaa atgtgaattc tcacgaaatt actacataaa
58201
       ttaaatgcaa ttctagttag aattccaaaa gtttatttgg aattggataa aactaaaagc
58261
       tcatagaaag aaaaaaggct gcagaatggc agtggaatag tgaaggtatt tatatcagga
58321
       catactatga agctactatt agtaacaaga gtattgtgtt gacagaggaa aaaacaaata
       tatcaaaatt caaaagtatg ttgaatgtta tgtgagattt aatatataat aaaagtagta
58381
58441
       cattcagaag agaacagatt ttttttaat ttaataaaca gatctgacac aactgaccaa
58501
       ctggaagaaa acaaacttag aagattatgt catgttacat accgaaacac attccMgatg
58561
       gttaaagact taattttatt ttttaaaaaa aggttttcag atgaaaaatc taagttggga
58621
       taagacagaa cttttaacta aaacaaactt aaagctataa aagtcacaca tttaacaatt
58681
       aaaatccaac agccaataaa cataaaggtg ctcaaactct ggcaatcatg gaaatggaca
58741
       ctaaaqtaaa aaqqaqattq cttaatatca atqaatgggc aagaacgtag aatagtaaat
58801
       agactatcag gtaaaaggta ctcttacact attggtgtaa aaggaaatta taatagcctt
58861
       {\tt ttctgaaagc\ aggtacaggc\ acagacacat\ acaaacacac\ atgcttttt\ tttttcatt}
58921
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58981
       aatgactaaa ttcttatttt aaacctttat taactcaatg gagtaacact cttttaatct
59041
       qaaaaataaa aaqaaaqaaa actttaaaaa gtagtagcat gtatcactga ctaaaggaaa
59101
       tqqaqaaqaa gagagaaaaa gagcactgac catggagttg taaggaaWtc aaaaacaaat
59161
       tcatccattt cacaattcac aattctgtct aggctgaccc tgaccttcat actcaaagca
59221
       acacatgcac cattagcgtt tctcattttt taaatatatc caagcaaata atgcccatgg
59281
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59341
       gcttctttct tctttgaaga aactggaact gactttggat gtgatttctg gcactgagca
59401
       cagaagaaat acaacattag aactattta ttaacttacc aattcaatga aatatatttg
59461
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59521
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59581
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59641
       tatqtqqaca qaaqactqaa taaacttatt aaataaataa attatagtat agatatacca
59701
       tattacatac gtaacaatgg aacaaataaa ctacaataat ataaattatt attttaacca
59761
       gaaaaaaaag caacctgcag aagtacataa caatcttatc tatgtaaagt tcaaaataga
59821
       cacgtaaaac actgtagtat tgagattcac tctgcaggaa agagttaaca taggaggcct
59881
       gatatattta aaggaccage ttacaggget accepttggt tggcatetgg agacttaact
59941
       tttagaatgt tccctccatt accaacagag aaggttgcac ctgctgcgcc agcctgccta
60001
       gactgtttgt ataaataaac actgtgatct gtggtgaaca tctgctttct ttccttctgg
60061
       qaqtqcqtaa aattttqqta qqcaqqqqat qcctatqqqa ccaaccccca qtgaaaacaq
60121
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60181
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60241
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60301
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60361
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60421
       atcagagtga acaggcaacc tacagaatgg aagaaaattt ttacaatcta cccatctgac
60481
       aaagggctaa tatccagaat ctacaaagaa cttaaataaa tttacaagaa aaaaatcaaa
60541
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60601
       tgcagccaac ggacacatga aaaaatgctc atcagcactg gccatcagag aaatgcaaat
       caaaaccata atgagacact atttcacaat agttagaatg gcaatcatta aaaagtcagg
60661
60721
       aaacaacagg tgctggagag gatgtggaga aaYaggaaca cttttacact gttggtggga
60781
       ctgtaaacta Kttcaaccat tgtggaagac agtgtggcaa ttgctcaggg atctagaact
60841
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60901
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60961
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61021
       atacaccatg gaatactatg cagccataaa aaaggatgag ttcatgtcct ttatagggac
61081
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61141
       tcgcatgttc tcactcatag atgggaattg aacaatgaga acacatggtc acagggtggg
61201
       gaacatcaca caccagggcc tgctgggggg tagggggagg ggggaaggat agcattagga
61261
       gatacaccta atgtaaatga cgagttaacg ggtgcagcac accaacatgg cacatgtata
```

### FIGURE 4-Q

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61321
       catacqtaac aaacctqcac gttqtqcaca tqtaccctaa aatttaaagt aaaataataa
61381
       tttttaaaaa agcaaataaa aataagtatc agtcatgagt tcaactatat gtcaaatctc
61441
       ccgagtcctt ttagtgaagc accaaatgtg gatggtagtg ggacctctgt cacaagtggt
61501
       agcagaagtg tggacacagt atcRgcacag tagagaaata aataaatgac agacttacat
61561
       ggtttgcctg tgtccccaac caaatctcaa tttgaattgt atctcccaga atttcctgt
61621
       gttgtggaag gcgcccaggg ggagacaatt gaatcatcag ggtcagtctt tcccatgcta
61681
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61741
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       atgattatga ggcctccaag ccatgtggaa ctgtaagtca aattaaacct ccttttcttc
61801
       ccaqtcttaq qaatqttttt atcaqcaqtq tqaaaatgga ctaatacact acactgctgt
61861
61921
       tgagtgacca cagtatggaa ttcaatgcca taaaaagaca gaggcaggct ttcattttat
61981
       ctctgctctc tcttaacatc tcattaaaga tttttaaaaa caaactcaga aggatgaaga
62041
       gagagacaaa ggagtagatg agacatgtca gcaaacattt ttaggttgaa aagcaaacta
62101
       ctqqtaattc aqcaacccaq aqaqaatqqa aacatqctaq caatggagaa aacccaqaaq
62161
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62221
       aaaaaaaagg ggcaggccag atgcagtggc tcacacctgt aatcccagca ctttgggagg
62281
       ccaaggcagg agtatcactt gaggtcaaga attcaagatc agcctgggaa acttagcaag
62341
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62401
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       gggctatgag catgccactg cactccagca acagagcaag accctgtctc aaaaaaaaga
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62521
62581
       aaaaaaaatt gtgtatagca agtagttaaa ctggctgggc gcagtggctc acacctgtaa
62641
       tccccatact ttgggaggct gaggcgggtg gatcacctga ggtcaggagt tcaagaccag
62701
       cctgatcaat atggtgaaac cttgtctcta ctaaaaatac aaaaattaac caggaatggt
62761
       ggcaggcacc tgtagtccca gctgctcgag aggctgagac aggagaattg cttgaacccg
62821
       ggagRMagag attgcagtga gccgaaatcg tgccacYgca ctccagccca ggagtgcttt
62881
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63061
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63121
       63181
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       ctacaaatti tactaggcat atagagcttc caatgtgttt tagtttccca ctttcaaaca
63241
63301
       agaggagaca gctaaggatc actggacata tgaaaaaggc gaggtaatga gcaaagtaag
63361
       taaaaaaggt acttgcagaa aacagaaact gaagaaataY ttatgaaaag ggttagatga
63421
       acctaatqtc aaqqaatata ataaaaattt aqatcactaa aqacaqatqa catqatccta
63481
       aaaqcctqca aaqaqqaaaa aaataqtcac aaaqqatcat qgaatcacaa cagtattctc
63541
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63601
       actaaaaggg aggcttgata tgaaaaaata tatattattt tttaattaaa ggaaaataat
63661
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63721
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63781
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       agaaaagcaa agggactctc tgtgatacag agagagtaca tgacaaaacc tatgtgatag
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63901
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63961
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64021
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64081
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64141
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64201
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64261
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64321
       aaacagcaat ataaacatta tttagaaata tggagtcaaa atacctagag taatagctaa
64381
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64441
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       caaattaaga agaaaagtat gtaaaaagat agggaagaRa ataaaatagt gaaccagaat
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64681
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64741
       tggcaaaaga aatataaaaa atgcaataga tcattgaata aagtggtaat cacacacatc
64801
       cccaccaaaa cagctccaac catatgtttt acaaatgatc caaatttgaa gaaacagatc
64861
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64921
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64981
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65041
       atagataagt cttaagtctg attttatttt caaatcaagt aaacaaattt cattccttat
65101
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```

### FIGURE 4-R

65161	cacctacaaa	gtctctgttg	ttttgaagca	tccatctcaa	ggattagaaa	aaattaataa
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65281	aaaacaagca	aatgagagga	ccgacaaagc	caaacttggt	tttctgaaag	accaaaattg
65341	ataaaccctg	acaaaattaa	tcgatgaaaa	agacaaggca	tagcaggcac	agtggcatgt
65401	gacttacgag	cagtaatccc	agctattcct	tagcttaggg	aggatcactt	aagcccagga
65461	gttctaatcc	agcttgggca	acataccaag	atccctacct	ctaattaaaa	aaaaaaaaa
65521	-	qcataaataa	_			
65581		aacaagactg		-		
65641	-	taaaatgaac	-	-		
65701		aattqtctac		-		
65761	-	ggtagtagtt	-	-		-
			~	_	-	
65821	_	gtttcataag	_			
65881	_	ttgggaagct				
65941	2 2	acagtgagac		-	_	3 333 3
66001		cctgtaatcc				
66061		agaccagcct		-		
66121		gtgtggagat				
66181	agaatcattt	gtaccccgga	ggcagaggtt	gcagtgagcc	aagatagcac	cactacactc
66241	cagcatgggt	gacagagcaa	gactttgtct	caagacagat	agatagatag	agaaataata
66301	aataaataaa	taagcaggcc	agcatggtga	tatgcaccta	tagtcctagg	tagtcagcag
66361	gctgagacgg	aagggtttga	gcccaggaaa	agttcaaggc	ttcagagagc	tgtgatcatg
66421	tcatggcact	ccatcctggg	ctaaagagtg	aaaccctgtc	tcagaaaata	aataaataaa
66481	taaataaatt	agtattttaa	aattctcgca	aagagaaaac	Kcctatgaat	tccatcaaat
66541	atttgagaaa	gaaacaatag	tggttcataa	aaacacttca	ggagaaaaga	gacagagaaa
66601	atactgaaca	actcatttta	caagaccagt	acaaacacag	agtagaacct	ttattttgaa
66661	_	ttattataca		_		_
66721		tctgataagt	_	-		-
66781		ctttggccta			-	
66841	_	ttaaaaqqqa	-			
66901	-	aagattctca	-	_	-	_
66961		aaatgaggtg				
67021		ttgaggagcc				
67081	-	tactggacag				
67141		ttcaatcaaa				
67201	-	gccttgaggg				
67261	-	ggaaaacctc		-		
67321		aattagccac	-			
67381		aaatttgttt	-		=	-
67441		actgcattct				
67501		acatttttca			-	-
67561		ggcaaaccta	-		-	•
67621		ctaaagttgc		-	-	_
67681	_				_	
		attctgaaag				
67741	-	atgttgattg	-	_		-
67801	_	taattagtat		_		
67861	_	agtctgctac		-		-
67921	_	attaaaatat			-	
67981	-	tattagaata				
68041						atgtttatta
68101		${\tt attctaattc}$				
68161		acctccaaat	-		_	-
68221	<del>-</del>	acaaacaact				
68281		cctataccag				
68341		ttattttgcg				_
68401		gacctaaaac				
68461	-	caattaaaag			-	
68521	-	tagcttaaat				
68581		aatgagaaaa				
68641	ctttcagagc	ttgtatagaa	aacattcttt	tctatcatct	gcccctattt	ctttggctgg
68701	cttattctct	tattccaata	cctgctgatg	ctaatcagca	cttggaaaag	tttttgctgt
68761	aatttatgac	ttccttaaac	agatatgtaa	atcaccaaag	attatctcaa	attctccagc
68821	gattccaaga	attctacaca	tctattttca	ttatatattt	tttctggcta	gatgcagtgg
68881	cttatgcctg	taatcccaac	actttgggag	gctgaagagg	gcagatcact	ggagggcagg
68941	agttcgagac	cagactagcc	aacatggtga	aacctggtct	ctactaaaaa	atacaaaaat

### FIGURE 4-S

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69001
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69061
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69121
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69181
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69301
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       ccctagaaca tatttgctgc atttgatatt aattaccatg acaaattcat attttcatcc
69361
69421
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69481
       taagatttcc agaacattct ggccttgctc tgtgttaatg tcacgtgccc taataaagga
       aaaatacagc ctgtcatttt cagaagatat ttctttatat taccatctct ttgaaaattc
69541
69601
       cacatctcat tataaaatat aaatttactt aatatgtaaa atRtctttac tatttgaaga
69661
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69721
       aattagtata tcataatcta ccttaacaat taatatttct tagttgaaca gccatgtcta
69781
       aagctgtttt agattactgc tgtatctcaa aaacacaaat ttttttgaat gaatccaatc
69841
       agtectgaaa tgettettta acagaettta cagteacate tecaagtaac atatteetee
69901
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69961
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70021
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70081
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70141
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70261
70321
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       actctgtcat gtggaaacaa ttatatgtaa atagaatcat acaacatgta tcctcttgcc
70381
70441
       ttggcttttt tcactcaaca caattctatg gaaataaatc caagttgaat gtaccaatat
70501
       ttcattgctt tttagagtca agtaatgttc catgctatgt gtgtaccaca gtgtttaacc
       atttacctgt tgaagaacat ctggatttca atcagtataa aattgacatg catctctaac
70561
70621
       agagtggaca aacttttgct taaagggcca gatggtaaat attttaggct tgtaaaccat
70681
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70741
       gtaaacaaag aggcatggct gtgttccaat aaaattgaaa taaaacctgt gacaaaacat
70801
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70861
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70921
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70981
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71041
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71101
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71341
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71401
       cgcaggtcac attaggcaac agcttttca aaatttatca aattcgtctt ttcttcccct
71461
       ttgtcattat taccttagca taaaagcacc tccaccatgt gtagattact acaacaccct
71521
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71641
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71701
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71761
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71821
       gtctttaaat acctgttcaa ggtccaccaa agttacacta caactttaaa gcttttctta
71881
       atatcaacaa cacacaaatc cctaatttct cacatggctg tctatactgc aagttaatgc
71941
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72001
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72121
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72181
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72241
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72301
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72361
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72421
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72481
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72541
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72601
       tcttaaaagc ttaagtacgt aaatcacctg gaaggtcgac aaaatcttct tctgtagcca
72661
       tttttgagat gatcctgaaa gaaaagtaaa tcatcaattt ggtttcttta agatagagtc
72721
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72781
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```

### FIGURE 4-T

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72841
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72961
       aaaaagtata gattatatta ttctttcata caactcttta tgtttatatg tataacgtca
73021
       cataatggga gatcatcgaa gctgaagatt ttcttagaag gggagataaa ttagaaaaga
73081
       aatgatacgg atttttatat agtaaccata accaaagtat gaaatataga atagtgaaca
73141
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73201
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73261
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73321
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73501
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73561
       caagcacctc tcaagagtaa gacgtaggca cagacgaaat gacgacatga aaacttaaga
73621
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73681
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73861
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74101
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74161
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74281
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74341
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74401
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74521
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74581
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74821
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75181
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       gtcacatttg gaatagataa tgataaacac taacatttat tgactgcata ctctatgccc
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       gggcactgaa acacagagag ctaagtgtct tacccaagat cacatcacca ctaaatggta
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75421
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75541
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75661
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75721
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75781
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75901
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75961
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76021
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76081
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76201
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76261
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76321
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       tcttgaaagc actgtactaa gtgaaagaag ctggacatca atgactgtat gaaaagaaat
76381
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76501
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76561
       ctatatctat ttgtcaaaat tcctagttag aactgtgccc ctgaaaaagg cgaccttttt
76621
       ttttttgaga aaggtcttgc ttggttgccc aggctggagt gcagtggcac aatcaaggcc
```

### FIGURE 4-U

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76681
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76801
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76861
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76921
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76981
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77041
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77161
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77221
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77281
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77341
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77401
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77461
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77521
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77581
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77641
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       tccttttctq ataaaaaatt atcctccaat agaaatgcta tctatgctat gtagaccata
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77761
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77821
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77881
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77941
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78001
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78121
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78181
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78241
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78301
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78361
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79861
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79921
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80401
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80461
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```

### FIGURE 4-V

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80521
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80821
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81121
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81181
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81241
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81301
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81421
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81481
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81841
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81901
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81961
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82081
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82561
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83461
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83521
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83581
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83641
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83761
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83821
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83881
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84061
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84121
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84181
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84241
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84301
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### FIGURE 4-W

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84421
84481
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84661
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84781
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84901
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84961
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85081
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85141
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85681
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85741
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85801
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85921
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85981
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86041
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87181
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87241
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87301
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87361
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87601
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87781
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       taagaaaatc catgaagcat tctgtatttt taaatgtaat aattaaaact tatagttagt
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88081
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       cccaaaattg cctgttatta aataaaaaaa tcattaagtt aggtcaaatt ttatgaaatt
88141
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### FIGURE 4-X

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88321
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88381
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88441
       ctttcagtta tattagaatt ttttagattg atcctatatg cttttaatgt aaattcaatc
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88561
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88621
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88681
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89041
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89221
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89281
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89701
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89821
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```

### FIGURE 4-Y

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92161	aacagagcga	gaccctgtct	ctctaaaaca	acaactccaa	ataaacaaat	gagtgagttc
92221	tggccacaga	ggttattcaa	ggttcctctt	ccattaagga	ggctagcttg	gatttgattg
92281	tgatgcactt	gaccatgctg	cttctcaaac	tcaaattcta	ccatttgatt	gtaggtttcc
92341	tagttaagct	agtgataaat	tcagaagtct	tatttcagcc	tcttttctta	catcaatgat
92401	ttcacacaaa	cgattgttaa	aaaaaaaaa	aaagaaattt	gtgcttcatt	ccaaagatat
92461	gtccttccaa	attaatttt	ttaattttta	agtatttctc	tagatatgaa	taggtaccta
92521	gatgttgttt	attgagattg	atatttataa	atgactcaga	ttctatgtgt	atttattaca
92581	tcttatcgaa	atgaaatcaa	gattgtgaYc	tgtaagtctc	tgcatactga	atataagttt
92641	ggtctgtcct	taggtttgca	gctgtggttg	cagttcacat	ggtctaatgc	tatttgtaac
92701	cttacttttc	ctccagggct	gcctttgctt	tcaacttagt	gcctttatac	ttgcttttcc
92761	ccccatttaa	taaatcctta	atcctttcca	caagtatata	cgtttgctta	cctgtaaaac
92821	tcccatttt	ccctatttaa	ctttacccaa	ttcatatcat	tcttttgaga	ctgaacacct
92881	ctaYaatttt	tctcgatagt	gcaatggagg	tctgcatgta	catacagagg	gaattcaata
92941	aacctttact	ggctatcagt	aatactagtt	tttatacctt	atggcagggt	aatactgtag

NM\_004087 [gi:4758161] Homo sapiens discs, large homolog 1 (Drosophila) (DLG1), mRNA

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NM 014660 [gi:7662303] Homo sapiens PHD finger protein 14 (PHF14), mRNA

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 $NM_012074$  [gi:13442997] Homo sapiens D4, zinc and double PHD fingers, family 3 (DPF3), mRNA

acattqtaqcaaaatqqcqactqtcattcacaaccccctgaaaqcqctcqqqqaccaqttctacaaqqaaqccattq gtggcccagaacaactgctacatctggatggagaagaggcaccgaggcccaggccttgccccgggccagctgtatac aacctgaagtggagcttcccctgaagaaggatgggttcacctcagagagcaccacgctggaagccttgctccgtggc aaatgtagaagaagggaatgaagaagaggatttggaagaggatattcccaagcgaaaggacaggactagaggacggg ctcqctqccctctcccttccctqcactqtttttcctcccttccctctqccqtqataqatqctaaqqaqtqqqqtqqa qqtqqqaaqtqqqaaqcaacaqtqqcqtataqqaaaaaqaaaatataccccqtqcacattttcaacatqtaqttqaa gaagcctaaattaggtactagaaaaaaaaaaaggacagaaacactgcctgatatgtgagcaagagcatgaaaatata gaatqattatctcaqagcaqagqagqtggggagcaggtggctggagagaggcggggtaggtaggcagggcgtccctg qctcaccaatgcqtctgqtccacatggcattttgggaaagcagatgggtcatgcttttgcaatgatgatcagatgct taggqqqcatttqtqctcctctqqccagqaaaqqqaacaqaqtccatccaaqctqccccccactcatctqccatqqt qttactqqctaaattaaaacccttqqcaqqqcatcqactqtqtqcqaqqcaatqctctaqqtcctqtaqqqqctqqa aaataaaccgcatgctggcctagccttcaagttgcttttcagccatgaaactaagctctgccaagcaatcgtgattg taggtcaagtatcgcgccatcacggaaggtgtaagtatatgtaggtttctctgttgaggatgcgtgttcctcagtag aagacaagcaggtggaggcatccagtgatttctaccctgtggaggctgagggtcgggggaagaaaacagatgacct cagcctagttgctttaatctgcttttccaagcactggatgcccttggatgacagcatcctcagcattaaaactggtg aactgatgaagtcacctggcctggagtgtgttgggcagccagtgtccccagagctgcttgtgggtttctggggttgga aggcagggaggtgcaactggcagggcctgatcagaggcagaaaatgacccccacagtggtcttttccctgctagaga aagcagagagcgggactggggggtgggggcttcaagtacagattgggcacactccaccagaccccagcaaggtcag ctgccccacgcctgtatctggcactgctggtgtgtgcagggatgaaacccagcatcagagaggttttcagcaaacct tccatgetcacetttggccaggtgcttgtcagatectagettegtgctggcttagactetcagttgttttgtgttgac agcattaggaataaaccgtttgtttcatctttccttttctccacacgtgtcacagccagatttcagctttgagttat  $\verb|tccctgaagaagccacaccaaccttgctttcaagcaaaatgcctgggcttgggggaaggtgtgtatctgtccatgtg|$ tggatgtcggctcagagctatagcttctctgtggggggtggcccaagggaaggctcctctggggccctggatggcac ttaa agtgcgtgacagcctgaa aagcatgcaggggtttggtccactcacctacttgaa agcctgtgggcaacgttcttttgagccaagacttctctgaatggccctgctggtggaaggggtgaggcaaaggcctctgacttggaccctttccac accagactggcagcacttcccccaggcagccagtggtgggccctgagccctcaggtccccagctccttgagggatga acctgggagcccaagagccagtggctgagctctgagaaggctccatctcccacctgcccttgagcgcgctctcaggc tgagaacacggtctcatcaggcgccttcctggcctgatgctgtgctgtctacgtcacacggtcgattcacaaaagcc agaactagacctcaaccaggtcatctccccgttgccaagtgggttcagggtgagggcaatttgtaagctcaatttct ctgacagccaagacatggagcatctctgctaagaagccaaaagaaattggttttcttcttctcattgctgaagcccc tetgtgtetetteteagggaeaggetggteeagtggetttggtgagggegeeteeatttgtgaaegetgggatteet tccacgaggaagetcaggectgcacaggetccaccaggecttggatgccetctagttgagtcagagaccctggaaac acactgagatctccaattgctgcctccattgatgtctctagacctgcagatacgaagcaaacctgggattgcttctt acctcacactcacaactccttctgagactctcagtcataaaggaatgaccaagagagtgggtctccagtgagagaaa tgcctatgaaagagggtttccctttttgctcttttgaacaccctccccactgatccttgggacccaacgccgcattg cctcttqcaqatqaqqttttqccttqqqctqcttqqqtacttcaqaccaqqactqaqtctqacacaqctttcatqaq qttacaqaaaaqqqctacaqatttqqqaaqctqtqtqtaatqqtcttqaqacaatatctccatttqqcccaccctqq cttctctaaaaaqcaacqacaqcaacaqacaaacaaaaaqctcccacctcccacccqttaqctqtcctccttc actqtqatqtqqttqcqqtctctqtaqqtqtqtqtqccacccttqtcctctqtcctctqqqqatqtqcccttcccac qtqtcaqqttcccactctttcqtqqttcctaacqtqaaqtqctqtqatqtttctqccctqcctaaqqaacqtatc aagctctctcagtgtttcagtgttggagattgaggctgtgccacatcttctgccatcctaaggggacatgatggttc tqtqattcccagaqaqctqqcaqattqtqacaatctccaqqaqaacctacaqattqqaaqcaqcccacacctqatqt ggactcctgtcccgggactcactcttcattcagaagactggtggcccacgtgccaggaccaccccacctctcttgct gccttttctcctgtcctgatggggttctgggagggagacctgtcgctgatgagatgaagaatgtggggatcgagcag ccttcttctttgggacccctcgatatcccatggaatgctcgcacgttctcaaagactgagtcacaagcccctacccc ttccttqctqtqqttaqtatcttqttctqtqattqqttaqcaatqttqactacccacqtaqtqaatcttttqtctqc aatttagagaatgtgtaaacaaataaaaggctttaaaactc

NM 001812 [gi:4502778] Homo sapiens centromere protein C 1 (CENPC1), mRNA

cqqatcqcaqctctcqcqqcaqtcqcctqaqacttaaqqttattqcttqqccqcqqqcctqqtattccqqcqattcqt ttcttgctcggcttcctggagctgtggtccgtgtgggcttccacctcagacagttgcgctggctcagcggggccgga acatggctgcgtccggtctggatcatctcaaaaatggctacagaagaagattttgtcgaccttccagggcacgtgac attaacacagagcaaggccagaatgttctggaaatcttacaagactgttttgaagaaaaagtcttgccaatgattt tagtacaaattctacaaaatcagtgcctaattcaacacgcaaaataaaagacacttgtattcagtcaccaagcaaag agtgccagaaatcacatccaaagtcagttccagtttcttcaaagaagaagaagcctctctacagtttgttgtagaa ccaagtgaagccacaaacagatcagttcaggcccatgaagttcatcagaaaattctggcaactgatgttagttccaa aaatacacctgactcgaaaaaaatatcaagtagaaacataaatgatcatcacagtgaagctgatgaagaattttact tatccgttggctcaccttctgttcttttggatgcaaaaacatctgtatcacaaaatgttattccatctagtgccaaa aagagagagacttacacttttgaaaattcagtaaatatgctgccttcaagtacagaggtttcagttaaaaccaaaaa catcggaaggacaagaaagaaaaccatcaggatcatctcagaatagaatacgagattcagaatatgaaattcaacga caaqctaaaaaaaqtttttcaacattqtttttaqaaacaqtaaaacqaaaaaqtqaatccaqtcccattqttaqqca tgcqqcaactgctccacctcattcqtqtcctcccqatqatacqaaqttqataqaqqatqaatttataattqatqaqt cqqatcaaaqttttqccaqtaqatcttqqattacaataccaaqaaaqqcaqqqtctctqaaacaacqcacaatatcc ccggctgagagcactgcactctttcaaggtagaaagtcaagagaaaagcatcataatatattacctaagactttggc aaatqacaaacattcccataaacctcacccaqtaqaqacatctcaqccctctqataaaacaqtactqqatacaaqtt atgctttgatagatgaaacagtaaataattatagatctacaaaatatgaaatgtattccaagaatgcagaaaaacca tctagaagcaaaaggactataaaacaaaaacagagaagaaaattcatggctaaaccagctgaagaacagcttgatgt qqqacaqtctaaaqatqaaaacatacatacatcacatattacccaaqacqaatttcaaaqaaattcagacaqaaata tggaagagcatgaagagatgggaaatgattgtgtttccaaaaaaacagatgccacctgtgggaagcaagaaaagtagc actagaaaagataaggaagaatctaaaaagaagcgcttttccagtgagtccaagaacaaacttgtacctgaagaagt ctgtttatagcaattcttcagtaagaaatgaattaccaatgcatcacaatagtagccgaaaatctactaagaaaaca aatcagtcatctaagaatattaggaaaaaaactattccacttaaaaggcagaagacagcaactaaaggcaaccaaag agtacagaagtttttaaatgctgaaggttctggaggtatcgttggtcatgatgaaatttccagatgttcactgagtg agccattggaaagtgatgaggcagacttggctaagaagaaaaatcttgattgttctagatctacaagaagctcaaaag aatqaaqataacattatqactqcacaqaatqttcccctaaaqcctcaqaccaqtqqatatacatqtaatataccaac agagtcaaacttggattctggagagcataagacttcagttttagaggaaagtggaccttccaggctcaataataatt atttaatqtctqqaaaqaatqatqtqqqatqatqaqqaaqttcatqqaaqttcaqqatqactcaaaacaatctaaaqtq ataccaaaqaacaqaatccatcacaaactaqtattqccctccaacaccacaatqttcqcaqqaccaaqagaacacq gagtactatctccagacacaatatcgtctaaaaggaaggcaaaagaaaatattggaaaagtcaacaaaaaatctaat aagaaaaggatctgtcttgataacgatgaaagaaagactaacttaatggtaaatctaggtatacctcttggagatcc tttgcagccaacgagggtaaaggacccagaaacaagagagattattctcatggatcttgtaaggccacaagatacat atcaattttttgttaagcatggtgagttgaaggtatacaagacattggatacaccctttttttctactgggaaattg atattaggaccacaagaagaaaagggaaagcagcatgttggccaggatatattggtttttttatgttaactttggtga ccttttgtgtactttacatgaaacaccttatatattaagtactggggattcgttctatgttccttcaggtaactatt taaatatatgtatgtatatatgtatatgtaaaaacagtttgtatagttggaatatttgtctttgtaattacttgtga 

NP\_004078 [gi:4758162] synapse-associated protein 97; discs large homolog 1; presynaptic protein SAP97

MPVRKODTORALHLLEEYRSKLSOTEDROLRSSIERVINIFOSNLFOALIDIOEF YEVTLLDNPKCIDRSKPSEPIQPVNTWEISSLPSSTVTSETLPSSLSPSVEKYRY **QDEDTPPQEHISPQITNEVIGPELVHVSEKNLSEIENVHGFVSHSHISPIKPTEAV** LPSPPTVPVIPVLPVPAENTVILPTIPQANPPPVLVNTDSLETPTYVNGTDADYE YEEITLERGNSGLGFSIAGGTDNPHIGDDSSIFITKIITGGAAAQDGRLRVNDCI LQVNEVDVRDVTHSKAVEALKEAGSIVRLYVKRRKPVSEKIMEIKLIKGPKG LGFSIAGGVGNQHIPGDNSIYVTKIIEGGAAHKDGKLQIGDKLLAVNNVCLEE VTHEEAVTALKNTSDFVYLKVAKPTSMYMNDGYAPPDITNSSSQPVDNHVSP SSFLGOTPASPARYSPVSKAVLGDDEITREPRKVVLHRGSTGLGFNIVGGEDG EGIFISFILAGGPADLSGELRKGDRIISVNSVDLRAASHEQAAAALKNAGQAVT IVAOYRPEEYSRFEAKIHDLREOMMNSSISSGSGSLRTSOKRSLYVRALFDYD KTKDSGLPSQGLNFKFGDILHVINASDDEWWQARQVTPDGESDEVGVIPSKR RVEKKERARLKTVKFNSKTRDKGQSFNDKRKKNLFSRKFPFYKNKDQSEQET SDADQHVTSNASDSESSYRGQEEYVLSYEPVNQQEVNYTRPVIILGPMKDRIN DDLISEFPDKFGSCVPHTTRPKRDYEVDGRDYHFVTSREQMEKDIQEHKFIEA GOYNNHLYGTSVOSVREVAGKGKHCILDVSGNAIKRLOIAOLYPISIFIKPKS MENIMEMNKRLTEEQARKTFERAMKLEQEFTEHFTAIVQGDTLEDIYNQVKQ **IIEEQSGSYIWVPAKEKL** 

**DLG1** Domains

Gene	Prediction Method	Accession ID	Domain Description	Start	End
DLG1	Pfam	PF00595	PDZ	218	304
DLG1	Pfam	PF00595	PDZ	313	399
DLG1	Pfam	PF00595	PDZ	460	540
DLG1	Pfam	PF00018	SH3	578	644
DLG1	Pfam	PF00625	Guanylate_kin	741	843
DLG1	prosite	PS00856	Guanylate_kin	740	757
DLG1	pfscan	PS50106	PDZ	218	256

NP 055475 [gi:7662304] PHD finger protein 14 [Homo sapiens]

MDRSSKRROVKPLAASLLEALDYDSSDDSDFKVGDASDSEGSGNGSEDASKD SGEGSCSDSEENILEEELNEDIKVKEEQLKNSAEEEVLSSEKQLIKMEKKEEEE NGERPRKKREKEKEKEKEKEKEKEKEKEKATVSENVAASAAATTPATSPP AVNTSPSVPTTTTATEEQVSEPKKWNLRRNRPLLDFVSMEELNDMDDYDSED DNDWRPTVVKRKGRSASQKEGSDGDNEDDEDEGSGSDEDENDEGNDEDHSS PASEGGCKKKKSKVLSRNSADDEELTNDSLTLSOSKSNEDSLILEKSONWSSQ KMDHILICCVCLGDNSEDADEIIOCDNCGITVHEGCYGVDGESDSIMSSASENS TEPWFCDACKCGVSPSCELCPNQDGIFKETDAGRWVHIVCALYVPGVAFGDI DKLRPVTLTEMNYSKYGAKECSFCEDPRFARTGVCISCDAGMCRAYFHVTCA QKEGLLSEAAAEEDIADPFFAYCKQHADRLDRKWKRKNYLALQSYCKMSLQ **EREKOLSPEAQARINARLOQYRAKAELARSTRPQAWVPREKLPRPLTSSASAI** RKLMRKAELMGISTDIFPVDNSDTSSSVDGRRKHKQPALTADFVNYYFERNM RMIQIQENMAEQKNIKDKLENEQEKLHVEYNKLCESLEELQNLNGKLRSEGQ GIWALLGRITGQKLNIPAILRAPKERKPSKKEGGTQKTSTLPAVLYSCGICKKN HDOHLLLCDTCKLHYHLGCLDPPLTRMPRKTKNSYWQCSECDQAGSSDME ADMAMETLPDGTKRSRRQIKEPVKFVPQDVPPEPKKIPIRNTRTRGRKRSFVP **EEEKHEERVPRERROROSVLOKKPKAEDLRTECATCKGTGDNENLVRYPS** 

NP\_036206 [gi:13442998] cer-d4 (mouse) homolog; 2810403B03Rik [Homo sapiens].

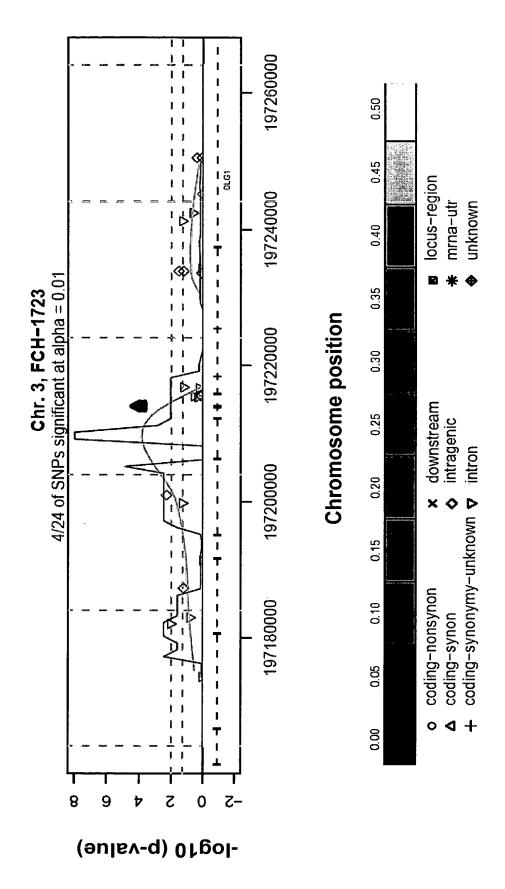
MATVIHNPLKALGDQFYKEAIEHCRSYNSRLSAERSVRLPFLDSQTGVAQNN CYIWMEKRHRGPGLAPGQLYTYPARCWRKKRRLHPPEDPKLRLLEIKPEVEL PLKKDGFTSESTTLEALLRGEGVEKKVDAREEESIQEIQRVLENDENVEEGNE EEDLEEDIPKRKDRTRGRARCPLPSLHCFSSLPSAVIDAKEWGGGGKWEATV AYRKKKIYPVHIFNM

NP\_001803 [gi:4502779] centromere protein C 1; Centromere autoantigen C1 [Homo sapiens]

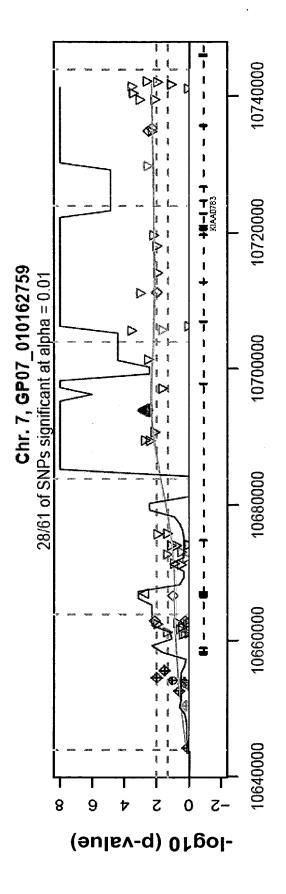
MAASGLDHLKNGYRRRFCRPSRARDINTEOGONVLEILODCFEEKSLANDFS TNSTKSVPNSTRKIKDTCIQSPSKECQKSHPKSVPVSSKKKEASLQFVVEPSEA TNRSVOAHEVHOKILATDVSSKNTPDSKKISSRNINDHHSEADEEFYLSVGSPS VLLDAKTSVSONVIPSSAKKRETYTFENSVNMLPSSTEVSVKTKKRLNFDDKV MLKKIEIDNKVSDEEDKTSEGOERKPSGSSONRIRDSEYEIQRQAKKSFSTLFL ETVKRKSESSPIVRHAATAPPHSCPPDDTKLIEDEFIIDESDQSFASRSWITIPRK AGSLKORTISPAESTALFOGRKSREKHHNILPKTLANDKHSHKPHPVETSOPS DKTVLDTSYALIDETVNNYRSTKYEMYSKNAEKPSRSKRTIKQKQRRKFMAK PAEEQLDVGQSKDENIHTSHITQDEFQRNSDRNMEEHEEMGNDCVSKKQMPP VGSKKSSTRKDKEESKKKRFSSESKNKLVPEEVTSTVTKSRRISRRPSDWWVV KSEESPVYSNSSVRNELPMHHNSSRKSTKKTNQSSKNIRKKTIPLKRQKTATK GNORVOKFLNAEGSGGIVGHDEISRCSLSEPLESDEADLAKKKNLDCSRSTRS SKNEDNIMTAONVPLKPOTSGYTCNIPTESNLDSGEHKTSVLEESGPSRLNNN YLMSGKNDVDDEEVHGSSDDSKQSKVIPKNRIHHKLVLPSNTPNVRRTKRTR LKPLEYWRGERIDYOGRPSGGFVISGVLSPDTISSKRKAKENIGKVNKKSNKK RICLDNDERKTNLMVNLGIPLGDPLOPTRVKDPETREIILMDLVRPQDTYQFF VKHGELKVYKTLDTPFFSTGKLILGPQEEKGKQHVGQDILVFYVNFGDLLCTL HETPYILSTGDSFYVPSGNYYNIKNLRNEESVLLFTQIKR

FIGURE 13

DLG1



## **KIAA0783**



# Chromosome position

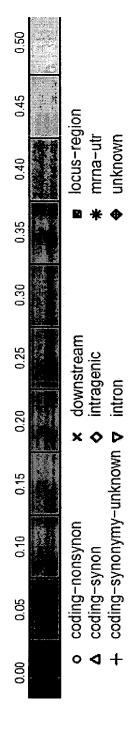
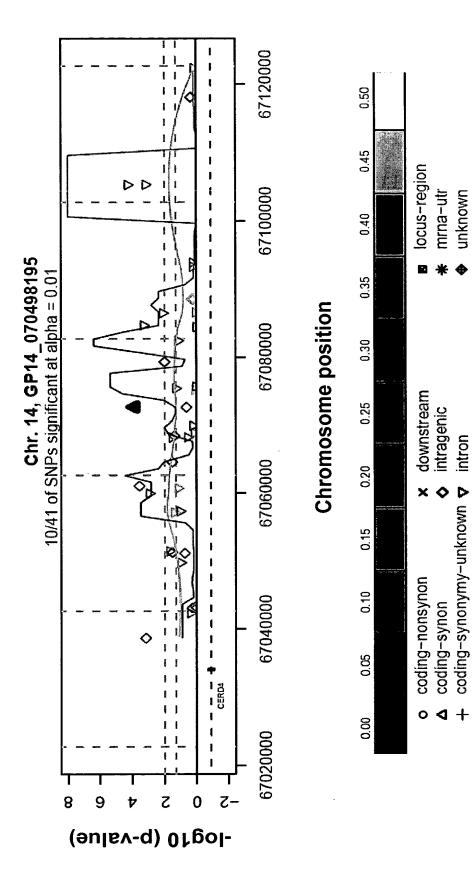


FIGURE 15

**DPF3** 



### CENPC1

